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SAMENA TRENDS

EXCLUSIVELY FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

A SAMENA Telecommunications Council Newsletter

Mohammed Bin Rashid Smart Learning Program (MBRSLP) & ITU agreement signing during SAMENA Council's Leaders' Summit 2016

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Stakeholder Cooperation in Digital Development

In order to transform the notion of *building a better connected world* into reality, as was discussed from various perspectives during our Leaders' Summit 2016 just recently, we need to emphasize on creating an understanding among all the stakeholders that our industry has essential requirements for moving forward in a progressive and a sustainable manner.

It is time to act. We must exercise our roles to pinpoint where we are lacking and, at the same time, express appreciation of the fact that connectivity and communications demands of today also demand better communication across all stakeholders in the industry as well as the value chain. In our collective pursuit for innovation, we are now amidst a realizing that without *ensuring stakeholder inclusion*, whereby all those directly related to the buisness of digital development as well as those driving value from it or those complementing it should equally participate and contribute efforts toward the sustainability of the business, we will not move forward effectively and quickly enough.

Telecom operators, which have an ever important role as the key enablers of digital world, have tremendous business opportunities ahead. The age of *collaborated regulation* is dawning upon the industry, and is being championed by the ITU. Representation of the private-sector, including of the telco sector, is rising within the ITU as well, driven by global platfroms like the CRO Meeting, which SAMENA Council has the privilege to lead.

In order to realize the level of co-operation and collaboration required, we need to calibrate our collaborative efforts on three core areas of stakeholder engagement and industry development: broadband, innovation, and co-operation. Doing so will facilitate an improved understanding of the current situation within the industry in support of broadband infrastructure development needs from both end-user connectivity and operators' investment perspectives; defining industry-wide cooperation with a new perspective and to set new priorities for collaborated action; and to underpin an affirmed willingness and recognition of the need among the industry stakeholders to do much more than before in order to ensure sustainability and growth of the industry over the next decade and beyond.
The role of all stakeholders, ultimately, is to ensure that digital development takes place in the most effective and sustainable manner humanly possible. Governments have a leading role in developing policies and roadmaps for accelerated broadband deployment. Thus governments need to put appropriate policy, legislative and regulatory frameworks in place, to enable smooth execution of processes within the set time and provide incentives and support for investments. Regulators have a key role in setting the licensing frameworks, ensuring level playing field in services, spectrum allocation, and taxation. Operators, carriers and service providers have a critical role in the rolling out of broadband networks and services. They need to provide better technology for the provision of quality services and build the capacity of human resources to adopt the new broadband skills. Equipment manufacturers and vendors have a role in ensuring adherence to approved standards in the creation of end-user terminals as well as network devices and equipment.

These roles have to be integrated and aligned toward the common cause. Limitless possibilities can be created through this approach.

It is generally accepted that an inclusive dialogue among the key stakeholders on creating a policy environment that would cause sustainable development to materialize, is the single most important step toward creating a new, viable future for all. With the initiatives SAMENA Council is undertaking under the leadership of its stakeholders, the largest regional telecom operators, a bright future for stakeholder cooperation rests before our eyes.

Yours truly,

Bocar A. BA
Chief Executive Officer
SAMENA Telecommunications Council

Smart Learning Signing Program Initiatives

Education is not just good for students, it is great for nations. We truly believe that education is the single-most important driver of economic empowerment for individuals and countries alike. No one understands this better than the UAE' leadership who have and continue to invest heavily in their citizens, especially the youth, to encourage greater growth and social well-being for the future. The UAE is working towards establishing a sustainable future with knowledge, science, technology and innovation at its centre as stipulated in the Technology and Innovation Higher Policy adopted just last year. It is no surprise then that 2016 was also declared as the Year of Reading to boost the UAE'S position as global capital for knowledge and culture.

Earlier this month, the Telecommunication Regulatory Authority (TRA) signed a cooperative agreement with the International Telecommunication Union (ITU), the UN's specialised agency for information and communications technologies, and Mohammed Bin Rashid Smart Learning Program (MBRSLP) during their participation at the SAMENA Telecom Leaders' Summit 2016, the region's most prestigious thought leadership forum for the telecoms sector.

This strategic agreement is aimed to coordinate the entities' joint efforts in assisting and providing consultation to countries who have expressed interest in formulating national policies within the framework of 'smart' learning. According to the terms of the agreement, the UAE will become the 'smart' learning hub for the region and the world. But what does it all really mean and where do we go from here?

As per the agreement, the parties will organise four workshops either online or onsite during 2016-2017, with the aim to spread awareness and build the capacity to formulate national policies with regards to the implementation of special smart learning strategies. In addition, they will encourage and recommend the best practices in the field of 'smart' learning based on the principles of Mohammed Bin Rashid Smart Learning Program. But this is just the tip of the ice-berg and the 'smart learning' Middle East engine is only just warming up.

We at the Program believe that sharing experiential knowledge is a key ingredient in innovation. Knowledge exchange also equates to efficiency in more ways than

one – it means that we spend less time and money when we make use of effective knowledge and tried and tested methods. What you give in, you truly get back and reap the benefits. Since the Program's inception, we have worked to incorporate global standards and provide an ideal model for 'smart' learning in line with UAE Vision 2021 at the same time.

To that effect, we have just wrapped up a meeting in Helsinki, Finland, where we met with some of the world's leading education advocates from the countries including Finland, United Kingdom, America, Canada, Australia, Hong Kong, South Africa and Argentina. The meeting brought together high-level leaders from around the world, to collaborate on the future of learning. The UAE, which was selected primarily for its innovative strategic methods in transforming education through technology, will be one of the pioneers in shaping the 'Leading Countries of the World' program that leverages experiences from members to empower education systems, and enable all students to achieve more. This inaugural meeting will be the first of many where members will share learnings, tools, frameworks and experiences, as well as begin to engage in collaborative projects and share examples of transformation in areas such as STEM, personalized learning, deep learning, education and learning analytics, increasing access to learning through digital curriculum.

Over the past 20 years, Finland has become an educational tourism destination hosting a number of high profile events to share their approach to education – widely acknowledged as one of the best in the world. To have been selected to share our own expertise and experiences was both extremely fulfilling and sobering as the UAE comes into its own in the smart education space.

On a local or regional level, earlier this year we launched a unique initiative called "Smart School Transformation Framework", after a successful trial period in 2015. The framework, a first of its kind in the region, is a core pillar of the Program and has been specifically tailored to suit educational institutions in the UAE under the supervision of international world renowned experts. The holistic framework offers schools the tools to assess the effective application of technology across all of its 202 schools. It provides a self-managed framework to educators to empower them in their ICT journey and allows them to design suitable roadmaps to achieve goals for technological advancement. The "Smart School Transformation Framework" focuses on core elements which cover leadership aspects, curriculum and resourcing learning, learning teachers and teaching, student and family context, assessment and student progress and operational provision and management.

We have also introduced a Leadership Development programme which aims to enable school leaders to understand the strategic role of technology, equip their schools with effective practices and approaches and advance student learning through the use of the latest technologies. The premise behind initiatives such as this is to ensure that the technology-rich environments provided through the Program are complemented by the professional development of educators, content generation and management, as well as sharing best practices in the integration of ICT in enhancing learning and teaching in the classroom.

With the most recent initiative, we are confident that it will solidify the UAE's position as a regional centre for smart learning, enabling regional countries to derive benefits from the Program and adopt state of the art advanced techniques to prepare our future leaders to be highly capable future individuals in a knowledge led economies. We will work with our partners towards providing assistance and advice to countries in formulating national strategies and policies in the field of 'smart' learning.

Education empowerment lies at the heart of what we are trying to achieve, whether locally or globally. As an organisation, we believe in the empowerment of our educators, if we equip them with the knowhow and the resources to let them flourish, we have done our job. However, this is not to say that we will cease to innovate - on the contrary – we invest heavily on assessing the effectiveness of our techniques and methods to make sure that we are at the top of our game. To learn and be educated is after all a lifelong endeavour, even if you are on the side of the educator.

Telecom Leaders' Summit 2016

New Success Factors for the Industry's Digital Development Efforts: *Stakeholder Inclusion, Alignment of Common Priorities, Partnership-oriented Mindset*

Leaders' Summit 2016 Provides Perspectives on the Current State and Future Requirements of the Telecoms & ICT Industry

Each stakeholder has contributed noticeably to the progress of the SAMENA region's telecommunications industry. Its future success, among many requirements, now rests on a complete makeover. Policy decisions and regulations made during earlier times and under past market conditions, or technology and infrastructure investments that were enabled and realized by telecoms operators, or the entry and onslaught of alternative market players, all have contributed to the growth of the telecoms and ICT marketplace over the years.

Understanding challenges of the digital economy and the stakeholders' need for aligning common priorities in a better connected world are the new collaboration imperatives for shaping the future of the digital marketplace.

Digital development, given its central role in the development of digital economies and the creation of smart digital societies, not to ignore, with its myriad of private-sector and public-sector stakeholders and complexities across all dimensions, now demands an unprecedented level of cooperation and sector-wide understanding of stakeholder priorities. Devoid of a collective understanding of such priorities and issues, which could only be addressed through cross-stakeholder dialogue, no industry business model would work. That is, it is no longer feasible to achieve true progress, save time, realize operational efficiencies, meet national as well as international obligations, and ensure a viable and sustainable future for both business and socio-economic well-being purely based on individualized priorities and by maintaining a silo mentality.

It is a matter of utmost importance that future decision-making among stakeholders be aided in the best manner possible, generating prolific exchanges of information and knowledge among the decision-makers . To this effect, SAMENA Council's Leaders' Summit, an annual top-tier stakeholders' meeting being organized since 2010, was recently held in Dubai, UAE.

More than ever before, some of the rarest congregations of regional and global leaders from the public and the private sectors were witnessed, including high-profile meetings of industry decision-makers and the champions of ICT development. Two of the most important events within the agenda of the Leaders' Summit 2016 were the ITU & Telecom Operators Meeting, which included representation from GSM Association, and the launch of SAMENA Council' Leaders' Rountable (SALT), a platform for regulators and telecom operators to align themselves on common priorities.

Some of the rarest congregations of regional and global leaders from the public and the private sectors were witnessed, including high-profile meetings of industry decision-makers and the champions of ICT development.

The central aim of this one-of-a-kind ITU & Telecom Operators Meeting, envisaged and facilitated by SAMENA Council and held for the first time between ITU's top leadership and telecom operators' top leadership as a closed-door interaction, was to foster direct dialogue

dialogue between telecom operators and the global UN telecommunications development agency, with the larger purpose of inducing intellectual proximity among telecom operators and national telecom regulators.

Responsibilities of telecom operators toward themselves and toward the industry, need for fair regulatory approaches, inclusion of over-the-top players into the regulatory net to foster fair market competition, the need to expunge the myth that telecom operators are overly profitable and thus should be heavily taxed, and an emerging trend of excessive regulatory interference under the pretences of consumer protection or national security, were among the areas of discussion of the meeting.

Similarly, the SALT Meeting brought regulators and operators together, to corroborate an industry-wide understanding that the business cannot continue in the same way and at the same pace as it was in the second or third-generation of the industry's development. Regulatory perspectives drew attention to operators' need to present recommendations and solutions to the issues they face, while operators' perspectives focused on unnecessary regulatory interference and insufficient incentives to support operators' investment and return-on-investment needs. As part of the new regulatory approaches, operators voiced their need for protection of their investment interests by the regulators. Conclusions drawn from the discussion in the meeting pointed to sustaining such dialogue. For this purpose, the SALT Meeting will continue to take place in the futur.

In the esteemed presence of International Telecommunication Union Secretary-General HE Houlin Zhao, with active participation of top leaders from telecom operators, including the SAMENA Council's Board of Directors, as well as regulatory authorities from

the region, Leaders' Summit, one of the regional industry's most anticipated top executive events, brought together renowned personalities from the Middle East, Africa, Asia Pacific, South Asia, and Europe.

A key milestone witnessed by the regional public-sector and private-sector leadership during the Leaders' Summit was the signing ofa MOU between Mohammed Bin Rashid Smart Learning Program (MBRSLP), the International Telecom Union (ITU), UAE's Ministry of Education, and Telecom Regulatory Authority of the UAE. The signing ceremony was attended by dignitaries from the UAE as well as from other regional governments, Group CEO's from the region's largest telecom operators, including top leaders from SAMENA Council's member companies.

Key insights from leaders' dialogue included:

- The need for more partnership-oriented mindset reiterated
- SAMENA Council's efforts in promoting local and regional ICT developments recognized by regulatory bodies
- Emphasis placed on the need to invest in capacity and building the ecosystem as well as robust frameworks for collaboration and cooperation between telecom regulators and operators
- ITU's support to the industry, including the need for spectrum, especially with rising focus on 5G development, communicated during stakeholder meetings
- The need to rethink the new definition of broadband

In addition the leadership dialogue, the participants' responses to automated survey questions further provided insights into the biggest perceived current challenge that the industry faces; that is, fragmented regulatory guidelines and issues in effective stakeholder cooperation.

In addition the leadership dialogue, the participants' responses to automated survey questions further provided insights into the biggest perceived current challenge that the industry faces; that is, fragmented regulatory guidelines and issues in effective stakeholder cooperation. A significant percentage of the audience, through the automated voting system, indicated that many countries have yet to set priorities on framing national ICT development plans; a challenge that can be overcome through better communication. Regarding IoT, no responses related to IoT's impact on education were indicated, which shows that the industry has yet to define diverse roles of IoT and that much potential for tapping IoT's hidden opportunities, including in the education sector, exists.

- New perspectives on artificial intelligence (AI) and virtual reality (VR) as the next big things in our technological evolution, and, contrary to the common belief, their positive impact on job-creation for humans
- Operators' and regulators' consensus on adopting a common language to be able to communicate more effectively
- Common understanding on the prevailing disconnect between operators and regulators, addressing which is imperative to fulfilling visions of digital and socio-economic development
- The need for pro-investment frameworks instead of the current purely customer-oriented frameworks
- The need for for creating good environment among operators and regulators, and the realization among regulators to adopt a level-down approach toward regulation
- Operators' belief that with demand for less regulation comes a responsibility to commit to fulfilling certain responsibilities
- The concept of a global telecom operator introduced in continuation of a reference made to "nation-oriented" approaches by telecom operators

Leaders' Summit 2016 was a direct indication of the advocacy and lobbying efforts that SAMENA Council exerts on behalf of its telecom operators. The presence of both global and regional top leadership in the Summit evidenced willingness among decision makers to understand and address the industry's challenges that could impact the growth of many other sectors related to ICT development. High profile reminders, such as given by HH Sheikh Nahyan bin Mubarak Al Nahyan, reverberated with the realization that SAMENA Council must contribute to global ICT development. Expressions of faith and trust shown in SAMENA Council's capacity to change the world and bring transformation to the economies of the region provided sufficient proof of the success of the Leaders' Summit and the fulfillment of the objectives for which the Summit was held, and, moreover, in which the imperative to ensure stakeholder inclusion, align common priorities, and adopt a partnership-oriented mindset was redefined.

High profile reminders, such as given by HH Sheikh Nahyan bin Mubarak Al Nahyan, reverberated with the realization that SAMENA Council must contribute to global ICT development.

SAMENA Telecommunication Council Team

Kastr Set to Reinvent Live Broadcast Mobile Experience

Kastr, the next-generation live video broadcasting network, launching this summer, is set to reinvent the world of real-time content on the go.

Kastr allows users to create a more professional type of content; live, interactive, formatted shows that gets them closer than ever before to their followers and also, to generate revenue and grow their business in the process.

Created by a heavyweight global team of tech and entertainment entrepreneurs, Kastr pushes the world of video live-streaming to the next level with a focus on quality broadcasting - taking inspiration from quality live television formats re-imagined for the mobile age.

Kastr is the brainchild of tech and media entrepreneur Adrian Woolfe, who previously, as managing director of Celador, was instrumental in developing and growing the television format Who Wants To Be A Millionaire into a $1BN global content and IP business.

He explained: "Live-streaming is a huge trend in digital but the content experience being created leaves a lot to be desired. Kastr will change that with an emphasis on quality live experiences that allows content creators to produce interactive programming on-the-go on their own terms."

Adrian Woolfe
CEO
Kastr

Joining Adrian is a stellar team of co-founders including YouTube sensation Kurt Schneider who boasts almost 7 million followers on his channels (1.8 BN views) and Social & Digital Entrepreneur, Rishi Mehta.

The Kastr platforms focuses on creative expression – allowing singer/songwriters to have real-time engagement with audiences, fashion/beauty bloggers to create live shows for fans, personal trainers to offer live interactive workouts, chefs to cook alongside their audiences, teachers to provide live interactive lessons and many more.

Anticipation of Kastr is high, having already secured multi-million dollar investment from investors including European media powerhouse ProSiebenSat1 and attracting some of the world's most successful social influencers with a total of 350M followers as confirmed content creators.

"We listened to what content creators really want that is not out there at the moment and focused on meeting their requirements," says Woolfe. "We want to empower users to create a new, more professional type of content – live, interactive, formatted shows that allows them to engage more intimately than ever before with their followers".

For users, Kastr offers exciting features that allow users to co collaborate with other influencers and their audience in real-time and to literally 'pull' fans on stage with them.

Kurt Schneider commented: "As a visual creator, I love the idea of fans being part of my creative process and interacting with films while I am making them. Kastr provides a world of interaction that hasn't been brought together in a live format before".

This level of interactivity allows deeper levels of engagement between viewer and creator, as well as a standard of content that viewers will want to record, re-watch and share on other social media platforms. And if viewers miss their favourite show on Kastr? They can watch it on a 30 day catch-up.

For further information: *www.kastr.tv or adrian.woolfe@kastr.tv or +44 7701 040087*

Dealing with the Great ISDN Switch Off

Spyros Salpeas
Head Global Services, MENAT
Orange Business Services

The telephony network is undergoing a major transformation with the end of the ISDN network. Throughout Europe and beyond, service providers are switching off their ISDN networks and migrating their customers over to SIP trunks.

One by one, the incumbents will be switching their ISDN network off over the next decade. The first service providers have already made the switch, including Slovakia and Macedonia. Most have made their plans public, including Swisscom (2017), Deutsche Telekom (2018), Orange (2020) and BT (2025).

For service providers, the migration is inevitable, as they don't want to operate two separate networks – a TDM one for voice and an IP network for everything else. This is a significant undertaking – in the UK for example, BT operates 3.2 million ISDN channels.

But this move isn't just a benefit for service providers, switching over to an all-IP network also allows enterprises to ditch their voice connections and gateways to enable the full convergence of voice and data.

Moving to SIP trunks

SIP trunks have been around for a number of years, and are essentially IP telephone line trunks from the enterprise telephony system to their service provider. They allow enterprise users to make calls to other parties outside of company network.

SIP Trunks can be terminated anywhere on the enterprise network rather than locally, like ISDN. For example they could be terminated in the data center to help consolidate communications across all sites. There are a wide range of benefits to using SIP trunks over ISDN, including convergence, cost savings, integration with cloud services and resilience.

The main barrier to moving wholesale over to SIP trunks has primarily been a regulatory one because it is a voice service. This has meant that SIP trunks have been primarily used by service providers to deliver international calling, while the incumbent has continued to offer local services such as local calling and emergency calls.

However telecommunications regulation is changing in many countries and service providers are now able to offer a full-IP service which includes local inbound and outbound calling. For example, Orange Business Services can currently provide a fully-unplugged service in 24 countries and territories. This means that there is no need to wait for the incumbent service provider to switch off their ISDN network to make the move to SIP trunks.

TECHNOLOGY NEWS

TECHNOLOGY UPDATES

Nokia and MTS Group to Collaborate on IoT and 5G in Russia

Nokia and Russia's MTS have signed a collaboration agreement that will create a path to the realization of 5G technology. The companies will deploy a test network during an international sports event in Russia in 2018. It is estimated that the Internet of Things (IoT) will result in 10 to 100 times more connected devices than people, creating technological challenges, but also opportunities, for new services and applications. With this in mind, MTS has outlined a roadmap to evolve its networks to 5G. Together with Nokia, MTS Group will develop test projects that leverage 4G technologies such as LTE-Advanced Pro as well as 5G to enable faster speeds, lower latency and new spectrum efficiencies. In 2018, the two companies will implement a 5G test network in a Russian football stadium to allow fans to experience video and other services during the major event being staged there.

Etisalat and Huawei trial 10Gbps fiber technology

United Arab Emirates (UAE)-based telco Etisalat is working with Chinese equipment vendor Huawei to test 10Gbps passive optical network (XG-PON) technology. The service will enable Etisalat to provide gigabit services over its fiber-to-the-home (FTTH) networks in the UAE, though a commercial launch date has still to be announced. The companies say that this was the first trial of XG-PON to be carried out in the Middle East and Africa (MEA) region.e students who were able to do that!"

Ligado makes 5G case to FCC

Ligado Networks is pushing ahead with plans to build a 5G network in the US, revealing details of a proposal to national regulator Federal Communications Commission (FCC) to use its mid-band spectrum for the roll-out. Ligado, which rebranded from LightSquared in February after emerging from bankruptcy last year, said "it is eager to be an integral part of this new wireless age", with ambitions to "finally" deploy its mid-band spectrum for third party use, and solve the country's "data-driven" problem. Formerly known as LightSquared, the company filed for bankruptcy protection in 2012 after being banned from launching a wireless network, using the mid-band spectrum, by the FCC, following objections from the country's GPS players. Since it began operating again, it has talked up its desire to use

the spectrum "to support the growing number of connected applications on the market". In a blog post, Ligado CEO Doug Smith said the company worked with interested stakeholders in government and across industry on its 5G plan, which proposes the use of mid-band spectrum "as a greenfield opportunity that is aligned with commission's stated goals of providing the foundation of the 5G future". "By deploying at least 40MHz of smart capacity on mid-band spectrum, we can create a model of at least a partial 5G network… that will enable 5G use cases and mobile applications that require ultra-reliable, highly secure and persuasive connectivity," he added. It also wants the FCC to bar terrestrial use of a 10MHz block near the GPS frequencies, proposing that the block should be used for satellite only, and lobbied for "a government conducted single national auction, for spectrum adjacent to our upper band". Smith added that the GPS industry "has demonstrated acceptance of our proposal and will likely benefit from it", adding that there is no evidence that GPS users or manufacturers will be harmed. Ligado has reached settlements with three GPS device manufacturers, following long running court battles, since emerging from bankruptcy. "We've taken all of these steps because we genuinely believe Ligado's mid-band spectrum is complementary assets that will fill an essential need in future 5G deployments," added Smith.

MTS signs new 5G agreement with Nokia

Russia's Mobile TeleSystems (MTS) and Finnish tech giant Nokia have announced the signing of a new collaboration agreement on developing 5G services, under which the partners will deploy a sports venue test network in Russia in 2018. In the meantime, MTS will also test systems with Nokia based on technology platforms including LTE-Advanced Pro alongside nascent 5G architecture to enable faster speeds, lower latency and greater spectrum efficiency. A press release notes that the implementation of a 5G test network in a Russian football stadium will allow spectators to experience innovative video and other services. Alongside the 5G test network deployment itself, the MTS/Nokia testing program will focus on areas including: implementation of LTE-Advanced Pro features such as enhanced carrier aggregation and LTE Broadcast; coverage and capacity improvements using LTE-Unlicensed (LTE-U) and Licensed Assisted Access (LAA); Internet of Things (IoT) projects using Narrow Band IoT (NB-IoT), LTE-Machine (LTE-M) and Extended Coverage GSM technologies; and demonstrations of 5G and dual connectivity of LTE and 5G technologies in the centimeter band. Previously, MTS signed a Memorandum of Understanding (MoU) with Sweden's Ericsson in December 2015, covering cooperation on 5G research and deployment in Russia, including spectrum studies of the next generation network and the building of a test system. Specifically, the MTS/Ericsson partnership covered a pilot project for LTE-Unlicensed (LTE-U)/ Licensed-Assisted Access (LAA) in the unlicensed 5GHz band in 2016 followed by the deployment of 5G pilot solutions using high-speed data transmission in the 15GHz band in 2017, ahead of the construction of the test area for the demonstration of 5G technology solutions during the World Cup 2018 football tournament in Russia.

Nokia and STC Conduct Test of Technology to Bring LTE-like Performance to Wi-Fi

Nokia and the Saudi Telecom Company (STC) have conducted a test of MulteFire technology, which combines the performance of LTE with the simplicity of Wi Fi deployment in unlicensed spectrum bands such as 5GHz. As data demand continues unabated, mobile operators want to explore more opportunities in other spectrum bands, for example the 5GHz band, to reach more of their subscribers in private enterprise networks such as stadiums, office blocks, shopping malls and airports. However, as the spectrum is shared by numerous technologies and the number of users increase, quality and speed can suffer. The test - which used Nokia's FlexiZone small cells together with MulteFire software - showed how MulteFire can co-exist with Wi-Fi to deliver the high performance, high speeds and security offered by LTE in a densely populated environment. MulteFire complements heterogeneous networks (HetNets), which use a mixture of macro and small cell radios, allowing operators to meet the increased connectivity demands of future smart cities and the Internet of Things (IoT). Waseem Al-Marzogi, Head of STC Group Business, Nokia, said: "As one of the founding members of the MulteFire Alliance, Nokia is driving the development of a global technical specification, and this test is a crucial step toward commercialization of the technology. By collaborating with operators like STC, we can develop new ways of utilizing spectrum such as 5GHz to meet the network demands of today and tomorrow."

Global internet users to double in next 30 months – CTA

The number of people using the internet is forecast to double to six billion over the next 30 months, with mobile giving that growth the biggest push, according to figures from the Consumer Technology Association. "It took about 50 years to get to the first three billion people on the internet; it will take 30 months to get the next three billion on the internet," said Shawn DuBravac, chief economist and senior director of research at the Consumer Technology Association, organizer of this week's event. He said the mobile environment has

"really started to influence and define how consumers are using the internet", and gave the example of how mobile already accounts for the majority of online payments in many countries. DuBravac pointed to the surprising stat that improvements in voice-to-text technology over the last 30 months have surpassed all the advances from the previous 30 years. In 1995 the word rate error was close to 100 per cent, by 2013 that had dropped to 23 per cent and last year it was down to just 5 per cent. The reason for the slow development: a lack of investment, he noted. He also outlined five different levels of automation for automobiles, from zero to fully autonomous, and noted that Google vehicles have already clocked up more than 1.6 million kilometers on the roads, which is more than the average driver in the US would drive in 75 years. Since all the data is shared across Google vehicle's platforms in near real-time, it accelerates learning and the effectiveness of that driving environment. This a type of aggregation learning that can be applied to other sectors such as smart homes and smart cities, he said. On the topic of wearables, he said we're starting to see a shift from what is possible from a technological point of view to what is technologically meaningful. "In the last couple of years I've seen the conversation move from not just the specifications of the device, but looking at the user experience, how it fits into people's lives and integrates into their activities. That is what will enable wearables to fit in."

Distance Wireless Charging Enhanced by Magnetic Metamaterials

Wireless charging of mobile devices is possibly one of the most desired technological milestones. Some devices can already be charged wirelessly by placing the mobile device on top of a charging base. The next step, charging devices without the need of taking them out of one's pocket, might be just around the corner. A group of researchers from the Department of Physics of Universitat Autònoma de Barcelona has developed a system which can efficiently transfer electrical energy between two separated circuits thanks to the use of metamaterials. This system is still in the experimental stage, but once it has been perfected and can be applied to mobile devices, it will be able to charge them wirelessly and at a longer distance than currently possible. Today's wireless devices make use of induction to charge through a special case adapted to the device and a charging base connected to an electrical socket. When the device is placed on top of the base, this generates a magnetic field which induces an electric current inside the case and, without the need of using any cables, the device is charged. If the device is separated from the base, the energy is not transferred efficiently enough and the battery cannot be charged. The system created by UAB researchers overcomes these limitations. It is made up of metamaterials which combine layers of ferromagnetic materials, such as iron compounds, and conductor materials such as copper. The metamaterials envelop the emitter and receiver and enable transferring energy between the two, at a distance and with unprecedented efficiency. With the use of metamaterial crowns researchers were able in the lab to increase the transmission efficiency 35-fold, "and there is much more room for improvement, since theoretically the efficiency can be increased even more if conditions and the design of the experiment are perfected" explains Àlvar Sánchez, director of the research. "Enveloping the two circuits with metamaterial shells has the same effect as bringing them close together; it's as if the space between them literally disappears", states Jordi Prat, lead author of the paper. Moreover, the materials needed to construct these crowns such as copper and ferrite are easily available. The first experiments conducted with the aim of concentrating static magnetic fields required the use of superconductor metamaterials, unfeasible for everyday uses with mobile devices. "In contrast, low frequency electromagnetic waves - the ones used to transfer energy from one circuit to the other - only need conventional conductors and ferromagnets", Carles Navau explains. Published this week in Advanced Materials, the study was conducted by researchers from the Electromagnetism Group of the UAB Department of Physics Àlvar Sánchez (also an ICREA Acadèmia researcher) and Carles Navau, and by Jordi Prat, currently researcher at the Institute for Quantum Optics and Quantum Information of the Austrian Academy of Sciences in Innsbruck. The device has been patented by the UAB and companies from several different countries have already shown interest in applying the technology. The research was funded by the PRODUCTE project of the Government of Catalonia, the European Regional Development Fund (ERDF) and the Spanish Ministry for Economy and Competitiveness.

Nokia and Ooredoo Qatar Sign Three-year Network Expansion Agreement

Nokia and Ooredoo Qatar have signed a three year agreement under which Nokia will upgrade and expand Ooredoo's existing mobile broadband network across the country. Under its Supernet initiative, Ooredoo is already using Nokia's LTE-A carrier aggregation technology to offer subscribers with compatible mobile devices up to 375 megabits-per-second speeds in busy areas of Doha, Qatar's capital and most populous city. In a recent demonstration, the companies achieved peak data rates

close to 600 Mbps. Under the new agreement, Nokia will deploy its radio and core network technologies and services expertise. Waleed Al-Sayed, Chief Executive Officer, Ooredoo Qatar, commented: "We continue to enhance the Ooredoo Supernet to deliver the best possible Internet

experience, working with a range of international technology leaders such as Nokia. By deploying these cutting-edge technologies from Nokia, we will continue to actively boost network performance from 2G through to LTE-A, and deliver a host of social, financial and business benefits for Qatar."

Asia Pacific OTT market to experience exponential growth

Revenues from the over-the-top (OTT) video market in the Asia Pacific region are expected to grow rapidly between now and 2019, according to research consultancy MTM. Focusing on the key markets of Australia, Indonesia and Thailand, the study – commissioned by technology companies Vindicia and Ooyala – found that OTT services would flourish, in spite of challenging broadband infrastructure and need for greater content localisation. MTM forecasts that Australia's premium OTT market will grow from around US$85 million in 2015 to $230 million in 2019; Indonesia's from $7 million to $40 million; and Thailand's from $8 million to $45 million. Local service providers will own a significant portion of the market and will dominate in Indonesia and Thailand, while Netflix will be the dominant player in Australia, researchers predict. Broadband infrastructure challenges and limited access to affordable fixed-line services are, say the industry executives canvassed, "significant barriers to growth" for OTT services in the mobile first Asia Pacific market. In Australia, the average connection speed is 8.2Mbs, about half that of the UK and US. Thailand has a similar average of 9.2Mbs, but only 9% of consumers subscribe. In Indonesia, there is only 1% broadband penetration with an average speed of 3.9Mbs, says MTM. In addition to international content, the 80 respondents felt local language programming is essential to the proliferation of premium OTT services in Indonesia and Thailand, with intense competition among local pay-TV providers over licensing of local content. "There's no doubt that Asia Pacific is a hotbed of premium OTT service expansion that will evolve based on regional nuances, tastes and economics," said Bryta Schulz, senior vice president of marketing, Vindicia. The regional presence of Netflix will, in general, drive OTT market expansion, however "consumers will struggle with the US streaming giant's one-size-fits-all offering," said researchers. Vindicia's Schulz added: "The next 12 to 24 months will function less as a test of whether or not premium OTT will take off, but more as a measure of how it will penetrate popular appetites. Among the creative and flexible approaches to generating reliable revenue, service providers will need platforms that can accommodate a range of content delivery and payment preferences".

MCIT issues draft regulation on OTT in Indonesia

Indonesia's Ministry of Communications and Information Technology (MCIT, also known locally as KemenKominfo) has published a draft ministerial regulation governing the provision of content over the internet by over-the-top (OTT) providers. IndoTelko writes that, before being put into effect, the regulation is being tested publicly until May 12, 2016. In brief, the draft requires that: the OTT operate in the form of a permanent establishment [but can be] either foreign or local players; OTT players must register their business forms and activities to the Indonesian Telecommunications Regulatory Body (ITRB) no later than 30 working days prior to providing services in Indonesia by attaching the required documents; and, if the OTT is in the form of foreign direct investment (FDI) then they shall attach the permanent business license from the Investment Coordinating Board (BKPM). Furthermore, it is understood that the regulation will also require the OTT service provider 'to comply with the provisions of the legislation in the field of: prohibition of monopolistic practices and unfair business competition; trading; consumer protection; intellectual property rights; broadcasting; film; advertising; pornography; anti-terrorism; taxation; transportation and logistics; tourism and hospitality; finance; health; and / or regulations and other relevant legislation.'

Viva Bahrain upgrades 4G to 150Mbps; also implements 'world first' triple-beam antenna

Viva Bahrain, owned by Saudi Telecom Company (STC), has announced the successful completion of a 4G LTE network upgrade, boosting the maximum end-user mobile data speed by 50%, now offering peak network speeds up to 150Mbps, whilst giving the operator 'the ability to handle major network capacity and continue delivering next-generation technologies'. The cellco's website announcement claims that 'having already established Bahrain's widest 4G network with more than 500 4G sites across the country, Viva's recent upgrade meets the growing needs of Bahrain's highly connected environment and fulfils customers' ongoing demand for ... voice and data capacity'. Viva Bahrain has also recently claimed a 'world first' by implementing a 'triple-beam' antenna installation, in partnership with China's Huawei, which delivers almost triple the capacity of conventional mobile towers. 'Jointly

with Huawei, we have achieved a great technological breakthrough,' said Viva Bahrain CEO Ulaiyan Al Wetaid, whilst Huawei's Peng Honghua added: 'Both companies worked closely to ensure the successful deployment of Huawei's solution, making Viva the first operator in the world to use it for commercial purposes.'

Triple Zero (000) Calls from Mobiles Easier to Locate

Calls in Australia to Triple Zero (000) from mobile phones now contain improved location information,

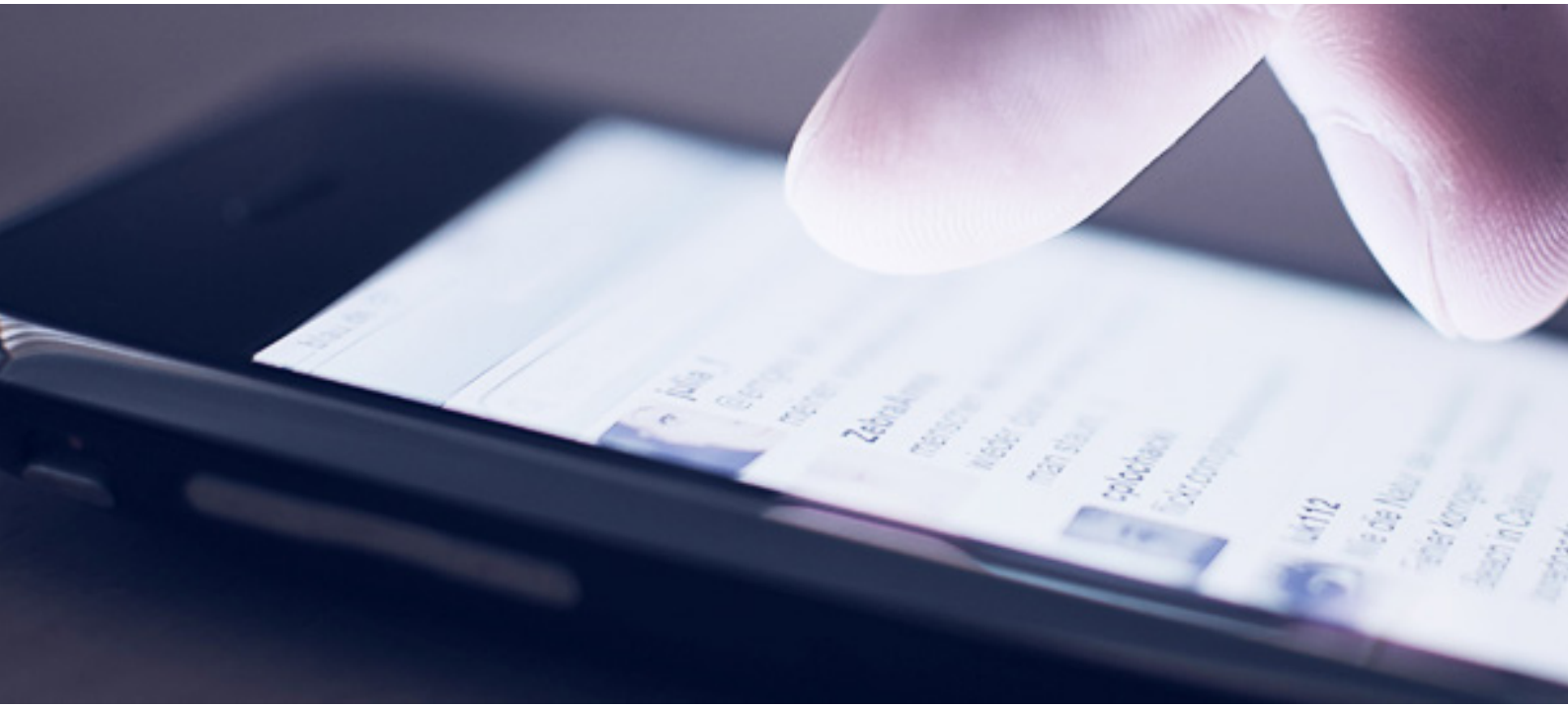
following upgrades to the Triple Zero (000) service. Of the 8.3 million calls made to Triple Zero (000) in 2014-15, 66.9 percent -- 5.6 million -- were from mobile phones. "Locating callers quickly in an emergency situation is vital, and I congratulate the mobile carriers and emergency services organizations (ESOs) on this tremendous initiative," said acting ACMA Chairman, Richard Bean. "Optus, Vodafone, Telstra (in its capacity as mobile carrier, the emergency call provider and initial answering point for Triple Zero 000 calls) and ESOs have been working in partnership to upgrade their relevant systems," he added. Announced at a recent meeting of the Australian Communications and Media Authority's Emergency Call Services Advisory Committee, all ESOs throughout Australia have implemented functionality to automatically receive better information about the location of a mobile caller to Triple Zero (000). Unlike fixed landline phones, emergency calls from mobile phones have not previously been able to automatically give emergency services potentially helpful information about the caller's location. Emergency services can now receive automated location information derived from the mobile networks for most phone calls to Triple Zero (000).

Australia unveils $38.3 million smart cities plan

Not a day goes by without a new city or a new country unveiling an ambitious plan for smart cities. With 80% of its economic activity taking place in cities, Australia needs a game plan for its urban future. And on Friday, Australia's Prime Minister Malcolm Turnbull announced a smart cities plan based on a new federal framework for policy that aims to position Australian cities "for success in the 21st century economy," he said. The plan, which lacks some level of detail on how exactly it will be carried out, has three pillars: investment, policy and technology. Smart investment is to give priority to projects meeting "broader economic and city objectives," while smart policy entails collaboration across all levels of government in order to develop city deals, through which governments, industries and communities will develop "collective plans for growth and commit to the actions, investments, reforms and governance needed to implement them". Smart technology, including ride sharing and autonomous driving, will focus on technology that has "the potential to fundamentally change how cities are planned, function, and how the Australian economy grows." As part of the new plan, the Australian government will establish an infrastructure financing unit, which will work closely with the private sector on innovative financing solutions. The government is also committing AUD 50 million (US $38.3 million) toward the acceleration of planning and development on major infrastructure projects "with the goal of developing business cases and investment options". The Australian government has also presented its vision for a "30-minute city". In practice, this means any resident should be able to access employment, schools, shopping and services within 30 minutes of home. The plan has received mixed responses in Australian media with some finding the plan, in particular the "30-minute city" vision, bordering on utopia or falling short of Australia's infrastructure requirements. Navigant Research forecasts that the global market for smart cities technology will be worth approximately $27.5 billion annually by 2023, up from $12.1 billion in 2016. Using digital technology to monitor, manage and enhance infrastructure and public services promises to deliver wide-ranging societal benefits, starting with job creation. For this to happen, vision must translate into action and start with engaging the user community. A traditional top-down approach might not be the best way to achieve a high level of commitment among users. A recent survey conducted in the UK by the Institution of Engineering and Technology, "Smart Cities – Time to involve the people" found there was a lack of awareness about what a smart city is and which benefits it can offer among surveyed citizens. Only a third of respondents were indeed able to accurately select the right definition for a smart city when asked to do so, while a fifth was unsure. Another 8% said a smart city was "a city that has a higher than average proportion of universities and colleges and aims to attract the most intellectual" and 5% described it as "a city that has a strict cleaning regime for its buildings, roads and public places". Furthermore, services that are today heralded as core to smart city development, such as driverless or electric cars and buses available for hire via smartphones, gathered relatively little enthusiasm (8% saw them as the most useful). Intelligent streetlights were instead deemed the most useful by respondents (29%). The IET is therefore advocating an approach that favors wider citizen engagement right from the start. This bottom-up approach, coupled with a strong collaboration between citizens, local and national government, might well be the key to steer clear of smart city utopia. Ultimately, citizens will vote with their wallet on these new connected services.

As Phone Market Matures, Display Makers Turn to In-Cell and On-Cell Touch Technologies

As the mobile phone market slows, display manufacturers are looking to new in cell and on cell touch screen solutions that offer consumers thinner and brighter displays, while shortening the supply chain for smartphone manufacturers. As panel makers promote these new solutions, and offer aggressive pricing as well, in-cell and on-cell touch solutions are expected to comprise half of all smartphone displays shipped in 2017, according to IHS. With the advent of active-matrix organic light-emitting diode (AMOLED) used in smartphones, new touch solutions are emerging that boast greater flexibility, lighter weight and other feature improvements. Emerging touch solutions for flexible displays are expected to grow more than 50 percent in 2016 compared to the previous year, which will bolster revenue levels, according to the latest IHS Touch Panel Market Tracker. "Since Samsung announced their Galaxy S6 Edge smartphone last year, flexible displays have grabbed consumer and industry attention," said Calvin Hsieh, director of display research for IHS Technology. "Flexible AMOLED displays offer many more features than traditional rigid AMOLED and LCD displays, which is an attractive proposition for device makers and consumers."



Adapt to Survive: The Evolution of Telecom Offerings to Satisfy the Modern Customer

Conor Stirk
Marketing Executive
SLA Digital

Traditional telecom services enjoyed years of uninterrupted growth with little change to voice and messaging services so it is no surprise that these giants of the communications field have struggled to evolve their offerings to align with today's customer demands.

It is no big secret that traditional telecom services are being challenged from a growing number of threats. Mobile Operators have had to deal with the erosion of traditional revenues of voice and messaging by the increasing popularity of OTT players who provide free and arguably better alternatives to traditional voice and data services. To stay competitive, huge investments have been made to data networks and infrastructure to provide greater connection speeds via 4G, greater coverage and cheaper prices if customers are to remain loyal.

Leveraging existing infrastructure and networks presents enormous opportunities for Mobile Operators. The spending power of these giants will outmatch any OTT player and as such, Mobile Operators will go on providing the network that allows OTT players to survive. New products and services in new verticals can and are being explored by Mobile Operators in a hunt to replace the revenues that are rapidly being lost in voice and messaging. Mobile represents 47% of all screen time according to a report by Millward Brown entitled *'Global Mobile Behaviour'* and this is likely to rise further as phablets take a larger share of the Smartphone market. With these advances in social behavior and technology, Mobile Operators will likely take a more centralised role in provisioning the global future of mobile however simply providing connectivity will not be enough and Mobile Operators will have to develop new core offerings

that replace revenues lost to voice and messaging and address challenges that an internet-based ecosystem presents.

In a previous article, *Digital Services: Partnering is Key to Success,* SLA Digital discussed that more and more Mobile Operators are discovering the value in partnering with OTT players and this certainly appears to be a trend within the industry with races between competing OpCo's to partner with the biggest OTT providers such as Spotify, Netflix and Viber in order to boost customer loyalty and make their offering more attractive to subscribers. Whilst the big brands may bring the customers to the Operator, SLA Digital have witnessed a shift towards partnering with a variety of content providers including education, health and lifestyle to centralise the Operator in customer's daily experiences. These partnerships may come in the form of bundles where a six-month subscription with the service as a caveat to a two-year plan or alternatively access may be available through third-party providers of Digital Services such as Carrier Billing. Whilst partnerships are certainly the most notable way that Mobile Operators are evolving to an internet ecosystem, Mobile Operators are continuing to explore and develop new core offerings including Cloud, Billing, Analytics and Permissions – often a relationship between Mobile Operator and a third-party service provider. At SLA Digital we have certainly seen first-hand the growing trend in Mobile Operators partnering with both OTT players and third-party service providers to explore and evolve offerings into the internet space.

Due to the heavily regulated nature of Mobile Operators, there is an opportunity to leverage this status to enter new verticals in the finance, Government and commerce spaces to offer services in the identity and security spaces. Mobile Operators could also leverage subscriber trust to enter further verticals such as Analytics, monetising the huge amount of data available in both anonymised and identified forms. Whilst the future for traditional voice and messaging services is uncertain for Mobile Operators and may in fact lie in the hands of the OTT Player - like a phoenix from the ashes, the expansion of internet-based ecosystems presents a sandbox of opportunities for Mobile Operators to explore and develop unique and innovative services that will firmly place Mobile Operators at the epicenter of customer's daily lives – until the next landscape changing development at least.

How Can Telecoms Heavyweights Avoid a Knockout?

Alexander Vityaz
Founder
Corezoid.com

Telecoms operators even in small countries enjoyed sustained robust financial performance in the 2nd half of the 20th century which led them to ignore vital strategic investments in innovations.

"Telecoms companies all over the world missed the boat with the appearance of messengers, because they didn't invest in the development of new technologies" - Vladimir Evtushenkov, co-owner of MTS (the largest mobile operator in Russia, with more than 107 mln. subscribers) - said in a recent interview.

However, operators did make big unsuccessful bets on becoming banks, instead of developing their natural competence - communication.

As a result of this loss of focus communications competence became divided into two parts: communication went to messengers and network support came to rest on the shoulders of operators with all the burden of local troubles, regulatory compliance and hardware issues.

As a result, billions of people all over the world are using messengers for making calls and exchanging messages and can hardly remember the name of their mobile operator.

Telecoms businesses turned into local players, hopelessly trying to develop IT-competencies to a world-class level. Messengers are winning this race, because they were initially born to be global.

Messengers are not running that smoothly. No messenger in the world has yet transformed into a full-fledged mobile wallet that allows clients to

conveniently talk to brands and make purchases. WeChat enjoyed more success than other messengers, but it couldn't make it beyond China.

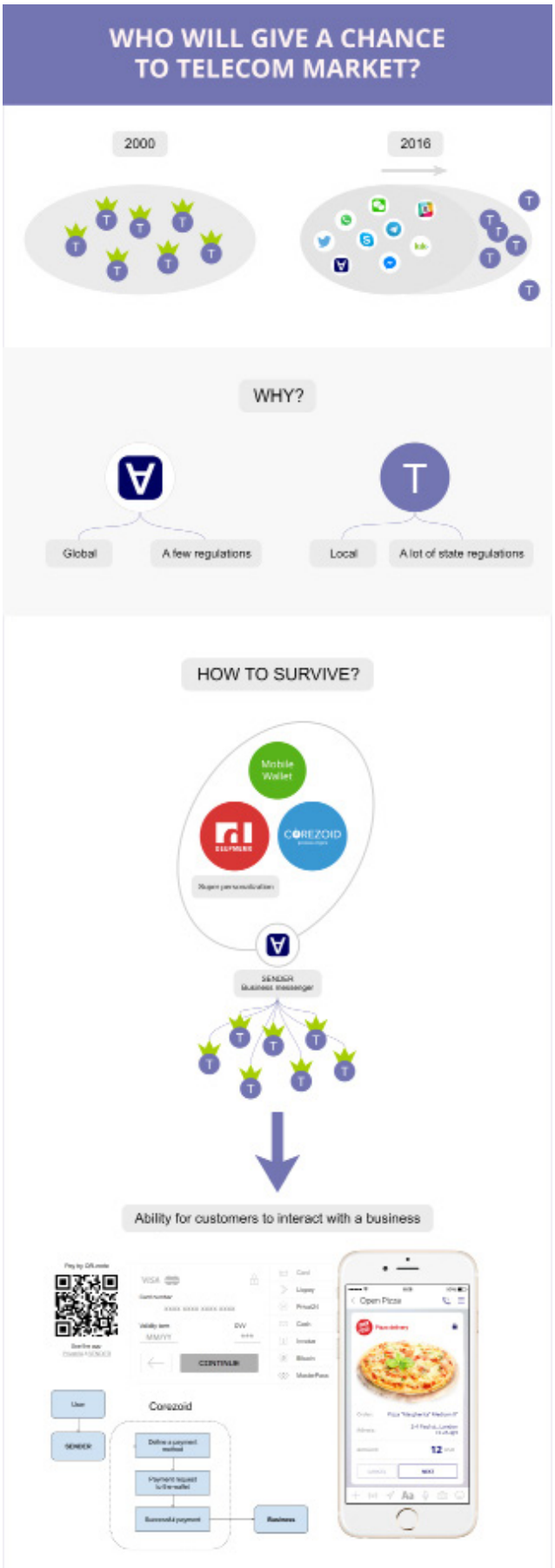
While messengers fight for market share and search for ways of monetization, telecoms-operators are face a closing window of opportunity to coordinate their efforts to become players in the markets of mobile commerce and messengers.

How might the architecture of a solution to enable telecoms-operators to seize this opportunity look like?

Obviously, we need a messenger with an integrated monetization model - a business messenger - that will allow customers to easily communicate with entrepreneurs and payments systems as their allies.

This new Ecosystem should include a messenger, mobile wallet and "digital core" responsible for the work of core-processes and bots.

Implementation of such a vision is perhaps the last chance for modern mobile operators not meet the same fate as the previous generation of telecoms industry heavyweights (e.g. dial-up operators and broadband access providers) that became commoditized and forgotten.



MEMBERS NEWS

MEMBERS UPDATES

Tunisia extends broadcasting of new free-to-air television platform with Eutelsat

The Tunisian broadcasting corporation (ONT) has signed a multi-year contract with Eutelsat Communications to broadcast its new subscription-free TV platform across North and West Africa. ONT has selected the powerful EUTELSAT 7 West A satellite to reach viewers across the region. The ONT is consolidating around ten Tunisian channels[1] in a single package at 7/8° West, North Africa's leading satellite broadcasting neighbourhood. EUTELSAT 7 West A's footprint also enables the ONT to extend reach to West Africa. Homes equipped with a satellite dish pointing to 7/8° West will be able to enjoy improved image quality and easier navigation of the channels in the platform. Nôomên Elfehri, Tunisia's Minister of Communication Technologies and Digital Economy, stated: "The launch of this national project is a vehicle for Tunisia's sovereignty in the field of broadcasting. Viewers will be able to enjoy a diversified and quality line-up of Tunisian content." Dhaker Baccouch, Chairman and CEO of the ONT, added: "In selecting the EUTELSAT 7 West A satellite, we are providing viewers with improved image quality and we are equipped to scale up our new platform with further channels." Michel Azibert, Eutelsat's Chief Commercial and Development Officer, concluded: "With this new contract the ONT is strengthening its portfolio of capacity on Eutelsat, adding to resources already leased on three of our satellites, EUTELSAT 12 West B, HOT BIRD and EUTELSAT 36B, for newsgathering and broadcasting to the general public."of information in this new digital age."

Tunisia extends HKT named Best Asian Telecoms Carrier and Best Broadband Carrier at Telecom Asia Awards 2016

HKT has won the top award of Best Asian Telecoms Carrier at the Telecom Asia Awards 2016. HKT has also been named the Best Broadband Carrier award for the second consecutive year. Now in its 19th year, the Telecom Asia Awards is the region's longest-running and most prestigious telecom industry awards. It rewards innovative and outstanding performance by Asian service providers and industry executives. The Awards selection is made by an independent panel of industry experts who cast votes on the basis of

innovation, financial performance, technology, market leadership and corporate governance. The judge panel recognized HKT's strong innovation in a hypercompetitive market and its successful integration of CSL. HKT has been a leader of technology evolution in the market for many years. Last year, HKT set new benchmarks for the global mobile market by demonstrating the world's first LTE-A 450Mbps solution and the world's first 4.5G 1Gbps mobile network. In addition, HKT's international operating division has achieved an industry milestone as the world's first MEF 100G CE 2.0 certified service provider. Mr. Alex Arena, Group Managing Director of HKT, said, "HKT is committed to fulfilling the communication needs of our customers and improving their daily lives through continuous technology innovation and investment. We are 'Building for Tomorrow, Today'."

Batelco unveils leading edge conferencing solution at the launch of new unified collaboration centre

Batelco has launched a new Unified Collaboration (UC) Centre at its Hamala Headquarters. The state-of-the-art centre was officially opened on May 17 at a special launch ceremony attended by Batelco Bahrain CEO Eng. Muna Al Hashemi and other executives. The leading edge facility has been designed to showcase Batelco's capabilities in delivering integrated voice, video, messaging, presence, mobility and conferencing solutions, as one seamless user experience. Batelco's business customers may use the centre to immerse themselves in the UC experience showcasing the advancement of technology and its benefit of enhancing collaboration by bringing individuals and teams together in a seamless media-rich environment. At the UC Centre, customers will experience why Batelco is the leader in innovation, technology and lifetime support, and how strategically Batelco will help them advance their technological roadmap. "We are delighted to officially open the UC Centre to provide our enterprise customers with the opportunity to experience the latest innovative communications solutions. We also look forward to welcoming potential new customers to demonstrate the excellent benefits that we can provide," said Mrs. Al Hashemi. "We have a very extensive portfolio of services and solutions and we are building on this solid platform by delivering further innovative services which operate over both our fixed and mobile networks, on any end user device, thus enabling an integrated solution customized to support all industries," Mrs. Al Hashemi said. The addition of the new centre enhances Batelco's position in the market as an ICT solutions provider capable of delivering integrated solutions that meet customers' needs. Furthermore, Batelco's Enterprise team is ready to assist customers in adapting new technologies to help them operate more effectively and efficiently. "Such ability has gained the company a regional and global reputation, which makes it the first choice for local and international companies setting up operations in the Kingdom of Bahrain," concluded Mrs. Al Hashemi.

Microsoft awards grants for affordable internet access

Microsoft announced Affordable Access Initiative grants for 12 entrepreneurial businesses to help scale their solutions and business models to increase affordable Internet access in communities around the world. Microsoft's Affordable Access Initiative aims to democratize access to the Internet through grants, commercial partnerships, connecting new leaders and community engagement.

The winners are:

- Power Solutions
- African Renewable Energy Distributor (Rwanda)
- New Sun Road (Uganda)
- Hardware Solutions
- Zaya Learning Labs (India
- Connectivity Solutions
- AirJaldi (India)
- Axiom Technologies (United States)
- C3: Communications Consulting Centre (Malawi)
- Ekovolt (Nigeria)
- Wi-Fi Interactive Network (Philippines)
- Application Solutions
- Kelase (Indonesia)
- Movivo (United Kingdom)
- Tambero.com (Argentina)
- VistaBotswana (Botswana)

"With more than half of the world's population lacking access to the Internet, connectivity is a global challenge that demands creative problem solving," said Peggy Johnson, executive vice president of business development at Microsoft. "By using technology that's available now and partnering with local entrepreneurs who understand the needs of their communities, our hope is to create sustainable solutions that will not only have impact today but also in the years to come."

Future of digital development through stakeholder collaboration redefined at SAMENA Telecom Leaders' Summit 2016

SAMENA Council's Telecom Leaders' Summit 2016 opened in Dubai in the esteemed presence of International Telecommunication Union Secretary-General Houlin Zhao and with the active participation of top leaders from both telecom operators as well as regulatory authorities in the region. As SAMENA Council's most anticipated stakeholder cooperation-building and thought leadership industry gathering, Leaders' Summit brought together renowned personalities from the Middle East, Africa, Asia Pacific, South Asia, and Europe. A key milestone witnessed by the regional public-sector

and private-sector leadership during the Leaders' Summit was the signing of MOU between the International Telecom Union (ITU), Telecom Regulatory Authority of the UAE, and Mohammed Bin Rashid Smart Learning Program (MBRSLP). The signing ceremony was attended by dignitaries from the UAE as well as from other regional governments, Group CEO's from the region's largest telecom operators, including top leaders from SAMENA Council's board of directors, all of whom had convened to participate in SAMENA Council's Leaders' Summit in Dubai. The main panel discussion at the Summit was an exchange of insights and commentaries around the theme "Necessities of the evolving market and relevant legislation and regulation". Dr. Khaled Biyari Group Chief Executive Officer of Saudi Telecom and Chairman of SAMENA Council led the discussion, reiterating the need for telecom operators to expand their digital visions in view of both business needs as well as socio-economic imperatives. Dr. Biyari remarked that "Success now increasingly depends on gaining a deeper understanding of the evolving digital ecosystem and the value-chain, developing or acquiring the capabilities needed to flourish, and ensuring that such ecosystems remain sustainable. New partnership-oriented mindset and strategies need to be adopted across the stakeholder spectrum. For telecom operators to thrive and not simply survive such approaches are integral to future success." SAMENA Council's Leaders' Summit 2016 was also host to a number of high-level meetings, including the much-anticipated meeting between the ITU and regional operators and GSMA, which was specially facilitated by SAMENA Council to assist in building better cooperation and understanding among telecom operators and regulatory authorities with the active involvement and advisory oversight of the ITU. Furthermore, the SAMENA Council Roundtable (SALT) was held, creating a new platform for regional operators and regulatory bodies to engage with each other in a mutually resourceful and facilitative manner, for the purpose of aligning priorities in ICT development. Mr. Bocar BA, CEO of SAMENA Council, sharing his observations on the Leaders' Summit stated that "True progress in the development of the Digital Economy is only possible if stakeholder inclusion is enabled and we strive for it by bringing the public and the private sector leadership together. Our business and our ecosystem are very complex. Fortunately, the quality of the gathering in our Leaders' Summit here in Mina A'Salam clearly indicates that our government and business leaders are not only ready to embrace new insights and mutually rewarding ways to rethink, they are also fully willing to define their success with each other's direct involvement. Moreover, we are continually observing that government leaders are becoming relatively more open toward understanding the pressing issues that the private sector is facing." On its third year as host sponsor of SAMENA Council's Leaders' Summit, Huawei was represented by Mr. Charles Yang, President of Huawei Middle East and Mr. Charles Ding, Senior Vice President, Huawei Global, commenting on the success of the Summit, Mr. Yang said, "The SAMENA Telecommunications Council is defining a roadmap for continued growth and transformation in an industry that serves as the key driver for every sector in this digital era we are living in. As the leading solutions provider to these networks, Huawei sees an open, collaborative approach as essential to shared success through cross-stakeholder participation and we are keen to have our stakeholders take advantage of our 'Open ROADS to a Better Connected World' strategy during this seminal event. This is an industry-focused strategy that will drive continued innovation by delivering exceptional services and experiences to telecom customers. Our Global Connectivity Index report being launched at this event demonstrates how ICT development can dramatically accelerate economic growth, increase GDP for any country, and deliver operational efficiency, productivity and quality across all vertical sectors. Mr. Ding sharing his insights about the leaders' summit success highlighting that, "The Global momentum in digital transformation adoption presents an opportunity for governments and private sector leaders to demonstrate the true value of open collaboration in driving cross- industry success and innovation. ICT advancements in telecommunications play a particularly important role as the enabler of building knowledge-based economies. Today, connectivity serves as the platform for all innovation to function and benefit people. Driven by responsible operations, ongoing innovation and open collaboration, Huawei has established a competitive ICT portfolio of end-to-end solutions in telecom and enterprise networks, devices and cloud computing, all leading to enabling a future information society and builing a better connected world.

Orange Business Services improves collaboration and IT flexibility at AngloGold Ashanti with hybrid network and cloud services

Orange Business Services has announced the extension and expansion of its network contract with AngloGold Ashanti, one of the world's leading mining companies. The deal delivers a range of network services across 44 sites in Africa, America and Australia to improve collaboration and securely manage internet and cloud growth. Headquartered in Johannesburg, South Africa, AngloGold Ashanti has 21 operations on three continents and currently has several exploration programs underway in both established and new gold-producing regions of the world. The multimillion dollar, multiyear contract builds on the 12-year relationship between Orange and AngloGold Ashanti. The hybrid network solution includes terrestrial and satellite connectivity, managed security and Business VPN Internet. It will allow AngloGold Ashanti to securely manage growing internet traffic and create a better end-user experience for employees at all sites. The solution also enables worldwide application of security policies and delivers the flexibility necessary for enabling the use of cloud-based business applications. The hybrid network is optimized for unified communications and enables AngloGold Ashanti's employees to use corporate applications, including voice, video and instant messaging communications securely across its entire global operation. Furthermore, managed Infrastructure-as-a-Service (IaaS) solution Flexible Computing Premium will allow employees to access cloud-based applications like mission-critical global ERP based on SAP with greater ease. Beyond the initial scope of connectivity, employee communications, cloud computing

and security, the agreement opens the door for co-innovation, for example, in the areas of e-health, underground safety, material, tools and maintenance cost management, and environmental monitoring. "We strive to listen to what is essential to our customers doing business in their markets and specific regional landscapes. AngloGold Ashanti is a long-time Orange customer, and we are very pleased with the trust they have placed in us. We aim to deliver mission-critical solutions for their infrastructure and bespoke consulting services to help them to reach their business ambitions," says Giorgio Heiman, vice president Africa, Orange Business Services

Turkcell, Ericsson delivers first Live HD streaming over LTE Broadcast

Turkcell in partnership with Ericsson has delivered the first immersive live streaming mobile experience over LTE Broadcast in Turkey. The demonstration took place during a derby between Fenerbahce and Galatasaray Odeabank, two of Istanbul's biggest basketball teams. This demonstration was part of Turkcell's deployment of Ericsson's LTE Broadcast solution and highlighted the strength of the solution to power HD video streams of the match from four different angles to mobile devices. The stream was delivered over Turkcell's LTE network to viewers in the basketball arena. It adds a new dimension to the live sports experience, matching the viewing quality and real-time action of the live game. As part of the commercial agreement, Ericsson's LTE Broadcast solution replaces unicast content delivery with a single-frequency network broadcast mode to deliver content concurrently to devices, better utilizing the available spectrum and ensuring a broadcast-quality experience across LTE networks. LTE Broadcast combines Evolved Multimedia Broadcast Multicast Services (eMBMS) with HEVC compression technology and MPEG-DASH to increase the efficiency and responsiveness of delivering video to consumers when, and how they demand it. LTE Broadcast can be used in live streaming, as well as across popular types of media delivery including OTT.

New digital mobile experience for KSA millennial is a global first by STC

'Jawwy from STC ' will allow users to build, share and manage their plan in real time instead of buying traditional fixed plans, and leverage online and social media to offer customers a completely digital experience In response to the changing dynamics of the telecommunications industry and to cater to the unique demographics of the Saudi Arabian market, Saudi Telecommunications Company (STC) has announced the upcoming launch of 'Jawwy from STC .' Considered a global first, the new digital mobile experience utilizes a completely online, digital service model, featuring its own SIM, app and freshly designed digital channels for sales and customer care. Dr. Khaled Biyari, CEO of STC Group , said: "We needed to develop a new offering for digitally-savvy young people. The millennials of today's Saudi Arabia exemplify the ongoing shift in consumer behavior and expectations. They live in an always-on, real-time world and they expect companies to cater to them in the same way. Jawwy is a significant part of STC 's current digital transformation and we believe this initiative will set the pace for the telecom sector in KSA and beyond." The Jawwy app will allow users to build, share and manage their plan in real time, instead of buying fixed plans. The app also offers a number of unique features designed in response to extensive research to identify the evolving needs of a customer base that is predominantly made up of people under 30 years old - 65% of the Saudi population. Features such as real time contextual offers and notifications, and a simple way for customers to activate services without calling customer support numbers or visiting a store, provide a completely customizable and transparent experience. To ensure that this transformational initiative is deep-rooted and sustainable, STC has set up a dedicated digital team to design, develop and operate Jawwy. "Innovating in the core mobile business by using online and social platforms requires a new breed of talent, and the organizational DNA and agility of an internet player. This is why we have set up Jawwy as a separate digital business unit led by Subhra Das as CEO of Jawwy from STC . The team is mandated to innovate by reimagining solutions for the current issues and evolving needs of a new generation," added Dr. Biyari. "We designed a new end-to-end experience to meet the needs and preferences of a new generation of mobile users, utilizing digital means to bypass physical challenges," said Subhra Das. "The new service provides an in-app, web-based mobile experience featuring personalization, transparency, e-commerce and crowd sourcing of support, and will be available in May in both iOS and Android versions. Jawwy will offer real experience innovation because we challenged ourselves to transcend category norms to find a new way to put the customer in control of the overall experience."

Ooredoo recognized as one of Oman's top 20 performing companies for sixth year running

For the sixth consecutive year, Ooredoo was recognized as one of the Sultanate's Top 20 performing companies by Oman Economic Review, Oman's leading economic and business publication. Accepting the accolade on behalf of the company was CEO, Greg Young, who joined representatives from leading corporations listed on the Muscat Securities Market (MSM). The recognition was based on financial indicators including growth of profit, earnings per share and share price growth. The last twelve months have seen Ooredoo's numbers grow substantially, driven by an increase in both mobile and fixed data. The leading telecommunications company launched a series of inspiring new offers and services into the market, all of which have been generating significant interest, with customer numbers and uptake of offers increasing. Supporting Ooredoo's strategy of service innovation, quality and reach, the company continues to invest heavily and in 2015 they completed their independent national fibre backbone, which spans the length and breadth of the country to provide cutting edge connectivity to consumers and business across Oman.

Omantel named among top wholesale operators at the MVNO World Congress 2016

Omantel, the first integrated telecommunication services provider in the Sultanate, has been named among the world's top wholesale operators at the 2016 Mobile Virtual Network Operators (MVNO) World Congress hosted by Informa Telecoms & Media. Omantel was highly commended and ranked second in the category of Best Wholesale Operator behind UK provider EE (part of British Telecom Group) at the awards ceremony held in Amsterdam, Holland on the 13th of April 2016. The recognition is the most recent addition to the growing number of awards and accolades received by Omantel within the global telecommunications wholesale arena. Commenting on the achievement, Eng. Yasser Redha Said Al Lawati, Senior Manager of National Accounts & Interconnection Department of the Wholesale Business Unit at Omantel stated, "We are indeed honored to continue to be globally recognized as one of the top wholesale operators. In addition to being an acknowledgement from the MVNO global community of Omantel's leading role in this important area of the telecom sector, this is also a recognition of our successful strategy in partnering with our MVNOs and developing this business stream together. Today, the market share of Omantel MVNOs is around 16%, which is the highest MVNO market share outside Europe and among the top 5 worldwide according to recent international reports. This reflects the significance of our MVNO partners in the highly competitive market of Oman. We take this opportunity to thank our MVNO partners who played a major role in achieving this important milestone." MVNOs are service providers that do not own their own full-fledged telecommunications network and are known as Mobile Resellers in Oman. Instead, they buy services on wholesale basis from Class I operators such as Omantel and packaging the services for retail with their own brand name. Omantel's extensive partnerships with MVNOs underscores the Company's new 3.0 transformation strategy which maintains Omantel's position as the digital partner of choice for the years ahead. Justyna Topczewska, Senior Conference Researcher at Informa Telecoms & Media added, "I am pleased to see that the MVNOs market in the Middle East is picking up and it is great to see that operators like Omantel are internationally recognized for their effort to help this market to grow. I am very happy to announce that Omantel was selected among the best wholesale operators at our annual event. I believe this is because Omantel is the pioneer in hosting MNOs in the Middle East and has a very interesting success story to share. We look forward to continue to work with Omantel in the upcoming events and present their journey on how Omantel along with its MVNOs made it a huge success and sustainable partnership." Omantel is also a founding partner of the International MVNOx Association (iMVNOx) and is working closely with the Association to share experience and develop best business practices and commercial models to enable the MNO and MVNO partnerships to flourish. According to Frankie Spagnolo, the Founder & Director of iMVNOx, "There are global companies and then there are companies who act globally. Omantel continues to grow subscriber acquisition in their national market by combining innovation in wholesale with their ambitious global vision. As thought-leaders in the wholesale sector, Omantel is driving unprecedented support for the virtual ecosystem, pushing the boundaries for other wholesale divisions worldwide by actively studying and refining their best practices for the most profitable wholesale strategy." The introduction of MVNOs in Oman has enabled extended reach to every segment in the market, especially those that were previously untapped. Through MVNO partnerships, Omantel has been able to increase its overall network market share to more than 58%, contrary to the global phenomenon of decreasing share of incumbent operators, thanks to the victorious strategy and the win-win situation created for all partnering parties. In the international wholesale arena, Omantel is considered as one of the most prominent and competitive wholesale telecommunication providers in the Middle East region. In addition, it is one of the leading companies in the field of submarine cable networks complemented by direct terrestrial links, which link Asia, Europe and America passing through Oman to meet the international capacity requirements of customers locally and internationally, thereby sustaining the Company's leading position among its competitors. Omantel's wholesale strategy is to be a communication hub in the region and to be the link between the East and West for the region and beyond.

Ooredoo wins awards at the Oman Tech Awards

Reflecting commitment to service excellence, Ooredoo took home six prestigious awards at the Oman Tech Awards, the Sultanate's biggest technology event of the year. Held at the Shangri-La Barr Al Jissah Resort and Spa, the company's website, Facebook page, and dedicated Ooredoo Oman App bagged four gold and two silver awards in the ICT & Telecommunication, Arabic Domain, Corporate, and E-Commerce categories. Ooredoo's ability to harness the power of technology to create unique and inspiring digital experiences was singled out for praise by the judging panel. The awards join a long list of accolades presented to the company for its consistency in developing innovative services that spur customer engagement and support today's digital lifestyles. Organized by the Information Technology Authority (ITA) under the patronage of H.E. Dr. Rasheed bin Al Safi Al Huraibi, Chairman of the Tender Board, the Oman Tech Awards was established to identify and reward talent in the Sultanate for their contributions in the IT sector. The event was inspired by the grand vision of His Majesty Sultan Qaboos Bin Said to transform Oman into a knowledge-based economy and is set to become the public and private sectors' benchmark for success.

Batelco launches an advanced IoT connected vehicles solution

Batelco, the Kingdom's leading digital

solutions provider has launched a cutting edge IoT (Internet of Things) Connected Vehicle Solution to support the requirements of the education and transportation sectors. The solution is aimed at equipping vehicles, such as school busses, with cameras, sensors, GPS tracker, sound level detector and object count and furthermore the solution is self-powered through the use of solar panels. The new Batelco Connected Vehicle Solution delivers a complete transportation security solution and has been designed and developed to address growing market needs, particularly from the education sector, to support safety issues for school children and university students. The solution will also be a valuable support for transportation companies in general. Batelco Bahrain CEO Engineer Muna Al Hashemi said that the Connected Vehicle solution was in big demand from school authorities who are very eager to ensure the safety of their students travelling to school by school bus. "The solution allows staff at the school to monitor the busses with CCTV surveillance and video recording. Among the benefits is the ability to count the number of passengers boarding and alighting from the bus and a two-way communication system to enable speaking and listening. Furthermore, there is also a built in alarm system to alert the school to specific issues that may occur," explained Mrs. Al Hashemi. "We want to 'upgrade the world' of communications for all our customers through our provisioning of the latest products and services at value for money prices. As Bahrain's most advanced digital network we'll keep bringing you innovative ways to connect better, work better and live better," added Mrs. Al Hashemi. Batelco has established partnerships with well-known providers, to meet the specific needs of different market segments and deliver solutions in a reliable, flexible and cost-effective manner. For all Batelco's enterprise solutions, Batelco also offers full after-sale support during the contract, giving organisations peace of mind when investing in new solutions. Batelco's comprehensive range of solutions positions the Company as an end-to-end ICT solutions provider offering customers a one-stop-shop experience. On an ongoing basis, Batelco continues to expand its ICT portfolio and strives to deliver new solutions to its customers. As one of the Kingdom of Bahrain's leading organisations, Batelco has played a pivotal role in the country's development as a major communications hub and today is leading the delivery of digital solutions while continuing to shape the local consumer and Enterprise ICT markets. Batelco is well known as a leading ICT solutions provider offering a spectrum of solutions such as Infrastructure Solutions, Unified Communications & Collaborations, IT & Physical Security to name a few. The Company's comprehensive choice of products and services meets international standards and can be customised to meet each customer's specific needs.

PCCW Global and Türk Telekom International (TTI) sign Memorandum of Understanding to explore joint business opportunities

PCCW Global, the international operating division of HKT, Hong Kong's premier telecommunications service provider, and Türk Telekom International (TTI), a leading telecommunications operator across Central & Eastern Europe, Turkey, Caucasus, and the Middle East, have signed a Memorandum of Understanding (MoU) to explore service portfolio and geographic synergies between two leading telecommunications companies. Under the scope of the MoU, consideration will be given to making PCCW Global's GTVN (Global Television Network), a managed end-to-end video transportation solution, available to TTI's customer base of international broadcasters, video content distributors and carriers. The MoU also provides for exploring how TTI could provide customers with PCCW Global's award-winning MOREAL cyber threat management service solution and other cloud-based security solutions from HKT. MOREAL is a real-time, self-learning network security capability that won the Global Telecom Business Award in 2015. Mr. Marc Halbfinger, Chief Executive Officer of PCCW Global, said, "We are delighted to have entered into this MoU to explore mutually beneficial business opportunities for our two companies. TTI has an excellent track record for seamless connectivity and unique coverage from Western Europe through the Middle East and onward to Asia. In addition, TTI has a wealth of experience in entering new markets throughout Central & Eastern Europe, the Middle East, the Commonwealth of Independent States (CIS), North Africa and Central Asia." Mr. Cengiz Oztelcan, Chief Executive Officer of Türk Telekom International, said, "TTI is dedicated to delivering best-in-class solutions to our customers. Through this collaboration with PCCW Global, we believe enormous synergies will be found by leveraging our broad geographic reach to bring PCCW Global's innovative suite of cyber and broadcast capabilities to serve our customers." TTI provides a full range of Internet/data services, infrastructure and wholesale voice services to telecom carriers and service providers, as well as mobile operators, cable-TV companies, Internet service providers and corporate customers. The company is 100% owned by Türk Telekom and covers 20 countries in Central & Eastern Europe, the Middle East and Caucasus, as well as Turkey itself. The PCCW Global network covers more than 3,000 cities and 150 countries with a portfolio of integrated global communications solutions that include Ethernet, IP, fiber and satellite transmission, managed services, international voice and VoIPX services.

Omantel, Infoline unveil search engine "Daleel 1010"

Daleel1010, Oman's first interactive search engine, is anticipated to transform information gathering in the Sultanate. The service is a joint initiative of Oman Telecommunications Company (Omantel), the Sultanate's first integrated telecommunications services provider, and Infoline and is backed by a robust and state of art technology platform. The service is a user-friendly tool for individuals both inside and outside Oman to find information on a wide range of businesses, products and services and features a user generated rating system to highlight independent customer feedback on the product or service provided. Daleel1010 is also supported by a dedicated multilingual 24/7 call centre: #1010,

as well as mobile apps for iOS and Android devices and a website: www.daleel1010.om. A search engine with user reviews and 24/7 phone support, Daleel1010 features online brochures, locations maps and easy contact details. The new service offers a database of more than 148,000 businesses, 6,500 plus business categories and 3,000 plus brands in the local market which will make browsing for information on businesses, products and services in the Sultanate easier than ever before. Daleel1010 offers a wide range of innovative and cost-effective marketing and advertising platforms for businesses by providing an easy connection with their customer base to ensure a higher return on investment. The marketing platforms include premium listing services, context based SMSs and Emails, IVR advertisement, Call Patching and much more. "This is ground-breaking innovate platform that caters to all enquiry needs of consumers and aims to deliver information easily to the people of Oman. With Daleel1010 people can liberate themselves from traditional and cumbersome ways of information gathering and instead be presented with multiple options to choose from before any purchase. The transparent information provided enables the user to feel confident that they are taking the right decision," said Haitham Abdullah Al Kharousi, Vice President at Omantel Consumer Unit. "At Info line it has long been our endeavor to create innovative service solutions and industry synergies to guarantee value for consumers that are aligned to the nation's innovative developmental strategy. Daleel1010 is a unique platform that everyone can benefit from on a daily basis through the ability to search for information and communicate with others. I invite everyone to check out this great new platform, which is unique in Oman, I am confident users will discover the many benefits of this innovative information guide," noted Manoj Mahanta, Senior Vice President, Infoline LLC. Aligned with Oman's 3.0 transformation vision for digitalization, Daleel1010 offers the Sultanate's citizens, residents and visitors multiple services including restaurant reservations, doctors' appointment bookings and emergency vehicle assistance. Investing in the future of the nation, Omantel connects even the most remote communities of the Sultanate to each other and the rest of the world. Omantel is the Sultanate's first and leading integrated telecommunications services provider, enabling the digital society to flourish, allowing new ways of doing business and delivering a world of information, news and entertainment. Today, Omantel boldly innovates to deliver the highest levels of customer satisfaction, the broadest and most reliable nationwide network while investing for Oman's future development.

Turkcell negotiates acquisition of 100% IsNet shares

Turkcell, Turkey's leading cellco by subscribers, has issued a statement announcing it has authorized its management to negotiate the acquisition of 100% of the share capital of Isbank (Is Bankasi) subsidiary IsNet. TeleGeography's GlobalComms Database notes that IsNet was founded as an ISP in 1999, with the Isbank conglomerate providing 100% of the investment. The company added a Fixed Telephony Service (FTS) Operator license to its portfolio in 2004.

EUTELSAT 65 West A now fully functional

The EUTELSAT 65 West A satellite, launched on 9 March, is now fully powered up and ready for service across Brazil and Latin America. The satellite is designed to target markets across Latin America and its Ku-band payload is optimized for direct-to-home (DTH) reception. It also features transatlantic C-band coverage for cross-continental video contribution and distribution. Eutelsat is anchoring EUTELSAT 65 WEST A in the Brazilian broadcasting market with an antenna seeding program designed to ensure that pay-TV and cable operators across the country are equipped to receive channels delivered by the new satellite. Already Eutelsat and Space Systems Loral (SSL) have successfully carried out transmissions in Extremely High Frequencies (EHF) using an experimental payload flown into space on the craft. In order to strengthen support for clients in the Americas, Eutelsat has opened a network operations centre (NOC) in Santana do Parnaiba in the state of Sao Paulo. The teleport hosting the NOC is also equipped with resources for telemetry, command and ranging (TCR) of EUTELSAT 65 West A and will include radiofrequency and video monitoring tools for service quality assurance of C, Ku and Ka-band services provided through seven Eutelsat satellites providing coverage of the Americas.

VIVA recognized as 'Best Telecom Company 2015' by Arabian Business

VIVA, Kuwait's fastest-growing and most developed telecom operator, announced that it has been awarded by Arabian Business organization as "Best Telecom Company", in recognition

of exceptional performance in 2015 during an event held in Jumeirah Hotel in Kuwait, in presence of leaders and executives from investment and economic world. On this occasion, Abdulrazzaq Bader Al-Essa, Director of Corporate Communications at VIVA said, "We are proud to receive such appreciation from an esteemed organization as Arabian Business. VIVA aimed since inception at making a leap in the telecom market and offering its customers a new experience through

innovative products and services." Al-Essa added, "We are proud to be the first leading telecom company to launch the Voice Over Long Term Evolution (VoLTE) for the first time in Kuwait and the Middle East. This is in addition to VIVA's commercial presence across Kuwait, which was expanded to 70 branches, enabling us to be closer to our customers and to meet the growing demand for our products and services. The "International Quality & Productivity Centre" also recognized our achievements this year, as "Best Contact Centre Experience" and "Best Network Experience".

Zain to buy Etisalat's stake in Sudan's Canar

Kuwaiti telecom firm Zain has agreed to buy Abu Dhabi-listed Etisalat's 92.3 percent stake in Sudanese fixed line operator Canar for 349.6 million dirhams ($95.2 million). The deal would strengthen Zain's grip on Sudan's telecom sector where it is already the top mobile operator by subscribers and has long sought to add a fixed-line license. It is subject to approval from the Sudanese authorities, an Etisalat statement said on Monday. Sudan accounted for 19 percent of Zain's revenue and 26 percent of its subscribers in 2015. Although its Sudan operations have suffered foreign exchange losses following the plunge in the value of the Sudanese pound, the local currency has stabilized recently. The pound's woes also make it difficult for Zain to repatriate profits, leading it to invest in local real estate as a hedge against inflation as well as raising the unit's capital expenditure. Zain Sudan, which launched 4G services last month, reported a 77 percent rise in 2015 profit to 1.04 billion Sudanese pounds. In dollar terms profit rose by 66 percent. In recent years, telecom operators in the Middle East and Africa have sought to hold mobile and fixed voice and Internet licenses so that they can provide these services in bundled packages to consumers and businesses. This helps retain customers while business services usually generate higher margins than consumer mobile tariffs, which have slumped due to competition from other operators and rival services such as Internet-based messaging and calls. Etisalat took a stake in Canar in 2004 and three years later spent 584 million dirhams to more than doubled its holding. In 2012 it took an impairment of 459 million dirhams on Canar due to local inflation, currency fluctuations and difficult economic and political conditions. Zain Sudan had a 42 percent mobile market share in 2015, Zain's financial results show. Mobile penetration in Sudan was 72 percent in 2014, according to the International Telecommunication Union, placing the country 165th globally and indicating substantial growth potential.

Turkcell plans IPO of Global Tower

Turkcell's board of directors had approved an initial public offering of shares in Kule Hizmet ve Isletmecilik (Global Tower). Turkcell owns 100 percent of the company, started in 2006 and operator of telecom and broadcasting towers throughout Turkey. Global Tower claims to be the third-largest towers and infrastructure operator in Europe. Turkcell said it will amend the existing articles of association of Global Tower and start the regulatory procedures for listing the company. Further details of the IPO were not disclosed.

Ooredoo supports 72 local and regional SMEs at Bindera Village

Proudly supporting Oman's young entrepreneurs, Ooredoo was the Gold Sponsor of the Bindera Village Exhibition, a one-of-a-kind gathering of 72 SMEs from across the GCC. With Mohsin Al Balushi, Advisor of the Ministry of Commerce & Industry as guest of honor, 46 of Oman's most exciting start-ups, in areas including food, fashion, technology and tourism, showcased their products and services and exchanged ideas with their counterparts from around the region. Speaking at the SME Exhibition, which was attended by a host of popular celebrities from across the region, Kumail Al Moosawi, Chief People and Corporate Affairs Officer at Ooredoo said: "The entrepreneurial spirit of the budding businesses at Bindera Village is truly inspiring. One of the cornerstones of Oman's economic vision for the future; our SMEs have an important role to play in the Sultanate's ongoing prosperity. Ooredoo is delighted to support these fantastic examples of entrepreneurship as they fulfill their potential. We look forward to continuing to support and play a part in them realizing their goals and ambitions." Also exhibiting at Bindera Village were some of Ooredoo's Incubator Program graduates, who used the up-and-coming exhibition to build awareness and a following for their products and services. Launched last year as part of the Ooredoo Goodwill Journey, 25 community women from Mussanah underwent a series of intensive workshops where they were taught essential skills in the disciplines of IT, cooking, and sewing. Recognizing the importance of technology and connectivity to SMEs, the Ooredoo Bindera Village booth provided information on its value-added portfolio of start-up oriented products and services, designed to help them manage communications efficiently and cost effectively as they grow. Also, taking care of immediate communication needs, SIM and recharge cards were available throughout the event.

VIVA becomes a member of ITU

VIVA, Kuwait's fastest-growing and most developed telecom operator, announced its accession to membership of International Telecommunication Union "ITU", a specialized agency of the United Nations, consists of experts and leaders in the telecom sector from around the world. Commenting on this membership, VIVA stated that its contribution will focus on designing the future of telecom sector, and exchanging experiences and opinions with different parties, through its participation in scientific conferences that help evolving and improving the

telecom sector in order to maintain the satisfaction of the customers. ITU is an organization based on public private partnership since its inception; ITU currently has a membership of 193 countries and almost 800 private-sector entities and academic institutions. ITU's headquarter based in Geneva, Switzerland, and has twelve regional and area offices around the world. ITU membership represents a cross section of the global ICT sector, from the world's largest manufacturers and telecoms carriers to small, innovative players working with new and emerging technologies, along with leading R&D institutions and academia. Founded on the principle of international cooperation between governments (Member States) and the private sector (Sector Members, Associates and Academia), ITU is the premier global forum through which par ties work towards consensus on a wide range of issues affecting the future direction of the ICT industry.

Turkcell reports record high first quarter revenue, EBITDA

Turkcell Group has announced its results for the quarter ended 31 March 2016, posting record high first quarter revenue and EBITDA, driven by growth in its domestic unit. Group revenue in 1Q16 totaled TRY3.225 billion (USD1.15 billion), up 8.3% from TRY2.978 billion in the same period one year earlier, while EBITDA reached TRY1.002 billion, climbing 8.1% year-on-year from TRY927 million; the EBITDA margin remained flat at 31.3%. Turkcell's local unit reported a 10.0% increase in turnover from TRY2.662 billion to TRY2.927 billion, equating to 91% of total Group revenues, and EBITDA of TRY916 million, up 10.6% from TRY927 million in 1Q15. Turkcell International, meanwhile, comprised 6% of Group revenue, generating TRY197 million, rising 2.1% compared to the year-ago period and turning to positive growth after seven quarters of y-o-y decline. Turkcell Group's net income increased four-fold to TRY563 million in 1Q16 from TRY141 million, which the operator attributed to higher EBITDA, lower translation losses and tax expenses, partly offset by a lower contribution from Fintur and increased interest expense on loans and 4.5G payables. In operational terms, Turkey's domestic unit saw total subscriptions fall 1.1% y-o-y from 35.6 million to 35.2 million, mainly due to losses in the pre-paid mobile segment. Fibre subscriptions rose 20.5% from 776,1000 to 935,400 in the same period, while ADSL also continued to grow, up 30.4% from 495,500 to 646,200. Total consolidated mobile subscriptions fell 2.7% from 69.5 million to 67.6 million. Turkcell CEO Kaan Terzioglu commented: 'In the first quarter of 2016, our key agenda item was the launch of 4.5G services on 1 April, which will underpin Turkey's digital transformation. The Turkcell team has established a strong 4.5G network and made mobile broadband with 4.5G speed available in 81 cities with a population coverage of over 70% ... Having seen a solid start to the year, we believe that we can achieve our 2016 targets by providing a strong 4.5G network, along with our converged services.'

Ooredoo Group customers grew by 6% to 118 million in Q1

Qatar-based telecoms operator Ooredoo Group's customer base reached 118 million at the end of the first quarter of 2015, a 6% or seven million year-on-year increase, driven by strong take-up in Myanmar, Indonesia, Algeria and Qatar. Group revenue reached QAR7.888 billion (USD2.164 billion) in Q1 2016, down by 2% y-o-y, although excluding foreign exchange translation impact, revenue would have increased by 1%, supported by strong growth in Oman, Indonesia, Myanmar, Kuwait and the Maldives. Group EBITDA fell 1% y-o-y to QAR3.179 billion in 1Q16, with a stable EBITDA margin of 40%, whilst group net profit rose by 75% to QAR879 million mainly due to positive forex impact in Indonesia and Myanmar. Excluding the forex impact and one-off gains from investments, net profit would have been in line with the previous year. The group also noted that data revenue accounted for 38% of total group revenue in January-March 2016 compared to 30% in Q1 2015 'due to Ooredoo's focus on network expansion and modernization and its strategy of marketing innovative data services for individuals and businesses'. Domestically, Ooredoo Qatar posted a 1% y-o-y increase in net profit to QAR484 million in Q1 2016 while Qatari EBITDA fell to QAR941 million from QAR980 million a year earlier. Qatar customers increased 6% in twelve months to 3.5 million at the end of March 2016, while Qatari revenues stood at almost QAR2 billion (around a quarter of total group revenue), in line with the year-ago period.

du selects Polystar to monitor VoLTE and IMS services

du announced further expansion of scope of services with Polystar, a leading supplier of Network and Customer Analytics, Network Monitoring, and Service Enablement solutions to the telecoms industry. The expanded agreement extends the existing solutions to encompass du's new IMS and VoLTE service elements. The deployment of a full IMS core and the launch of VoLTE services will introduce additional levels of network challenges. In addition to the new IMS and VoLTE service elements, there is an existing, multi-domain network that includes GSM, GPRS, UMTS and LTE technologies. du continues to deliver an outstanding customer experience and assure service quality, end-to-end across all domains. The system expansion will deliver new insights for the telco, enabling the experiences of different customers and segments to be more effectively monitored and managed. For example, the detailed reporting will allow du to obtain accurate customer experience information for its most valuable customers, ensuring that SLAs are delivered effectively. Similarly, du can also secure more reliable information regarding the performance of its leading roaming partners. The end-to-end view of service performance can be mapped to each and every subscriber, enabling the most accurate picture of experience and quality to be obtained both in real-time and historically. Polystar's Service Assurance solution is at the heart of the Big Data analytics enablement

platform. The open architecture of the platform, together with the advanced real-time analytics capabilities, enables delivery of rich intelligence via APIs and data feeds to third party systems. Full details of signaling transactions and records are provided to du's Big Data solution in a way that will allow du to build an entirely new Customer Experience Management (CEM) model, enriched with real-time data from Polystar. "We continue to collaborate with global best practice service providers to ensure that our services and solutions continue to safeguard an outstanding experience for all our valued customers. We are leveraging Polystar's expertise to build our CEM model for mobile customers and to introduce independent benchmarking for our VoLTE and other services," commented Saleem AlBlooshi, Executive Vice President - Network Development & Operations, du. "We have worked together with Polystar to streamline their solution to suit our requirements and to include new features that are essential for delivering best in breed services to our end users." Polystar's network and service analytics allows du to and provide voice quality reporting. It's at the heart of of du's Service Quality Management program to analyze individual events, perform detailed troubleshooting. "Polystar has been a long-time partner of du and this latest investment highlights the strength and continuity of our relationship," said Basel Shubair, Regional Sales Director for MENA & Indian Subcontinent in Polystar. "Our ability to span multiple technologies and to support du while it invests in the introduction of new services and networks has been critical. We look forward to working hand-in-hand with du to continue the evolution of our solutions to meet future needs."

Huawei expands regional SME support through new channel partnership with FDC International

Huawei, a leading global ICT solutions provider, has appointed FDC International as regional volume distributor in the Middle East to support the growing need by SMEs for new ICT solutions that enable them to access enterprise level ICT capability. FDC International and Huawei have partnered to speed up time to market Huawei products and solutions in the Middle East through FDC International's regional product centers and its expertise in addressing the digital transformation requirements of SMEs. The tie up between Huawei and FDC comes just before Huawei's annual Partner Summit set to take place on May 2, 2016 at the Madinat Jumeirah, Dubai and will highlight ICT trends impacting the market while showcasing some of the technology solutions making headway in regional Enterprises. "This partnership forms part of Huawei's direction to support the SME market through the recruitment of select partners who are able to deliver on Huawei's value-add proposition," said Hany Hussein, Vice President of Partners & Alliances, Huawei, Enterprise, Middle East. "This is in-line with Huawei's 'Transforming Together' channel development strategy which aims to create the right partner ecosystem to support the business needs of organizations of all sizes, through a long-term commitment that is based on strong collaboration with channel partners." He added. FDC International have strong regional presence and will support SME ranging from 100 to 1,000 users across multiple locations, and provide fast, efficient delivery of Huawei solutions. "SMEs like any other business are keen to have access to the latest ICT solutions that help them operate with the same capability as a large enterprise, by deploying new ICT technologies that help them succeed in their digital transformation," said Dr. F. B. Safe CEO of FDC International. "FDC has over 27 years of regional IT distribution experience with more than 200 qualified professionals to address the needs of SMEs while providing them with insights and advice on how to leverage Huawei's agile solutions to evolve their ICT environments efficiently and grow their business." Huawei's 'Transforming Together' channel strategy is based on developing strong, collaborative relationships with its partners to help end-users gain maximum value its solutions through the partner's insights and understanding of local market needs. Huawei's channel partners play an important role in delivering sustainable market growth in the region, and its channel strategy aims to recruit, enable and activate a core community of trusted and valued partners. Huawei's channel program provides partners with a wealth of information and education, giving them the tools to realise ICT's full potential to transform their customers' businesses. While the process of digitalization speeds up, new technologies, new players, and cooperation modes emerge, allowing customers more control and power while collaborating with partners in the ecosystem. The ICT industry is becoming more and more 'developer-defined', Huawei remains committed to the strategies of 'Focus' and 'Being Integrated' with customers and partners while building a new 'developer-defined' ecosystem through joint innovation. Huawei will be welcoming partners from across the Middle East and Pakistan to its annual Channel Partner Summit on May 2, 2016 at the Madinat Jumeirah, Dubai. Sharing its latest developments in its ecosystem of partners, the event is set to provide the latest on what Huawei and its partners are doing to further support enterprises in the region to transform their businesses.

REGIONAL NEWS

REGIONAL UPDATES

PTA Announces Theme for Pakistan Mobile App Awards 2016

This year as well, Pakistan Telecommunication Authority (PTA) has launched competition under the "Pakistan Mobile App Awards 2016" in collaboration with Internet Society (ISOC) Asia-Pacific Bureau, Ministry of IT & Telecom, Telenor & Special Talent Exchange Program (STEP). This initiative has been taken to encourage Pakistani individuals who have developed the most innovative user generated or professionally produced content that engages the mobile user and enhances the traditional mobile content experience. This year's competition theme is "Embracing Mobile Accessibility", which aims to focus on the development of mobile applications on the needs of Persons with Disabilities (PWDs) in Pakistan. The independent international sources quote that about ten to fifteen percent of Pakistan's population consists of people with disabilities (PWDs). The 2016, Mobile App Awards will invite to harness the benefits of technology, to promote digital inclusion, and embrace persons with disabilities. This competition will accept proposals and ideas till July 30, 2016. Shortlisted contestants will be required to develop their mobile application(s) with the help of mentors & facilitators by end-September, winners will be announced in end-November. A panel of judges will evaluate and decide on the top five mobile apps based on a pre-defined criteria. Rs 300,000 in cash. Winning team who would like to turn their solution into a functioning startup will also be offered acceleration through

formal incubation into the Pakistan Telecommunications Authority's M-Lab, depending on interest and fit.

Etisalat partners with Rotary District Sri Lanka for CSR projects

Leading Service provider Etisalat Lanka will be joining hands with internationally renowned charitable organization the Rotary District in Sri Lanka for a new corporate social responsibility strategy. The partnership between the two entities is set to tackle national issues in healthcare specifically those relating to vision and eyesight. Speaking on their new CSR strategy Etisalat Lanka's Chief Commercial Officer, Yasser Aboul Amayem said, "We believe there are lots of opportunities here in Sri Lanka and so Etisalatis trying to be more proactive in order to add value for our nation-wide customer base." Etisalat has always been an ethics oriented company and complies fully with law and guidelines outlined by the nation's environmental and other regulatory bodies. Said Aboul Amayem, "Our network has been operating locally for over 25 years as pioneers in telecommunication. We believe that it is our role to create emotional bonds by adding value to health and that is one aspect of our CSR strategy." For Etisalat's new CSR partnership with Rotary, the decision to hone in on issues related to eyesight was a strategic and thematic one. With the rise of digital communications and smartphone technology, the mobile phone has quickly shifted from being an audio device to one that is primarily experienced through site. Aboul Amayem adds, "We wanted to give the gift of sight to those in need and help support sustainable community-based eye care programs, The reward will be in seeing the wonderful reaction of people who are fitted with spectacles or get their sight back for the first time. George Jesuthasan, Rotary District Governor for Sri Lanka was optimistic on the value that Rotary could add to Etisalat's CSR endeavors. "The difficulties corporate face is the reach to the needy but the reach to the people and the network we have is our strength. Furthermore, our implementations cost is almost zero. Every cent that we get from donors goes to the project. We also have many tiers of stewardship that strictly monitor the movement of funds so corporate can rest assured that every cent that they donate is accounted for. Rotary District Governor George Jesuthasan expressed positivity about the partnership with Etisalat and support from the corporate sector in general. "Joining Etisalat is a great moment for us because they are taking it as their CSR program to partner with us. Many of our large projects are Rotary Foundation funded but the origin of the funds starts from the corporate. We have a mechanism where the corporate send money to the foundation which is then used for high scale projects."

Omantel LTE-A trial achieves peak speeds of 1Gbps

Oman Telecommunications Company (Omantel), the Sultanate's incumbent fixed and mobile operator, has announced the successful trial of '4G LTE-Advanced (LTE-A) Pro technology', which achieved peak download speeds of up to 1Gbps. 'The trial gave impressive results where we were able to achieve peak download speeds of 1Gbps using the 4G LTE-A pro technology, which is considered a significant milestone in our roadmap of utilizing our spectrum assets to test the network and prepare for the technological evolution to 5G,' commented Omantel's Chief Operating Officer Eng. Samy Ahmed Al Ghassany, adding: 'This breakthrough brings us one step closer to the realisation of Omantel's vision for Oman, to become a truly networked society, where lives are enriched through connectivity.' Omantel launched commercial LTE services in 2012 and introduced maximum download speeds of 200Mbps last year through the introduction of LTE-A technology. Total network investment totaled OMR120 million (USD310.7 million) in 2015 and by the end of the year 4G coverage had reached over 86% of the population.

Türk Telekom and Huawei Win Mobile Infrastructure Innovation Award at Global Telecom Business Summit

Turkey's leading communication and entertainment technologies company Turk Telekom and Huawei, were awarded with "Multi-band Antenna Innovations for Nationwide 4.5G Network in Turkey" Project in Global Telecom Business Summit which has been hosted regularly since 2007. New multi-band antenna solution will be used both for Turk Telekom's 4.5G frequencies integrally and for new generation technologies. To address challenges such as where to find space on already crowded towers and how to deal with antenna size limitations, Huawei and Turk Telekom released the innovative 4.5G multi-port antenna solution. Newly generated antenna solution offers many solutions to operators such as support for new technology implementations like MIMO, easy deployment, environmental compliance. This solution facilitates the deployment of 4.5G networks and provides high network performance even when tower space is limited and antennas are of small size. Furthermore, this solution supports band-specific electrical down tilt adjustment, which enables quick deployment of commercial 4.5G networks. Coşkun Şahin, CTO of Türk Telekom said:"As being the most reliable partner of Turkey's digital revolution, we took another important step with this project that was granted the most innovative award of the world. We are proud of the attention of the world's biggest generators to the new antenna solution and their desire to generate it. I would like to thank Huawei for this partnership. We will continue to initiate these kinds of innovative solutions with our excellence in technology know-how and investment force." Zhou Taoyuan, President of Huawei Antenna Business Unit, commented: "By using the newly released 4.5G-oriented antenna solution, Huawei expects to deploy Türk Telekom high-quality 4.5G networks and achieve business successes."

Ooredoo Qatar upgrades to Category 9 LTE-A

Ooredoo Qatar has announced the addition of the Category 9 LTE-Advanced standard to its mobile network, which

Supernet
ooredoo

utilizes multiple 4G frequency bands to support download speeds of up to 325Mbps for customers. As reported by the Gulf Times, the mobile network upgrade, which is part of the ongoing 'Ooredoo Supernet' enhancement program, is now available for all customers who have compatible devices, at no extra cost. The operator highlighted that a range of mobile devices can utilize the advanced 'Cat 9' speeds, including the Samsung Galaxy S7 and Ooredoo's Netgear Mi-Fi router, allowing users to enjoy web browsing speeds 'up to 45%' faster than existing 4G LTE services.

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Myanmar's MPT meets 20 million subs milestone

Myanmar's leading mobile operator Myanma Posts and Telecommunications (MPT) added more than 8.5 million mobile connections over the past year, taking its user base to 20 million. The state-owned operator had a 46 per cent market share at the end of April, but that has fallen from 54 per cent in Q1 2015 as foreign rivals Telenor and Ooredoo have continued to expand their connections. Telenor increased its share to 37 per cent after adding more than nine million connections over the past year. It had 15.5 million customers at the end of April compared with Ooredoo's 6.9 million (which gave it a 16.5 per cent share), according to GSMA Intelligence. Two years ago MPT had a 100 per cent market share and just 400,000 connections. Telenor and Ooredoo entered the market in Q3 2014. To celebrate hitting the 20 million milestone, MPT is holding a lucky draw and giving away prizes worth MMK2 million ($1,650) between 20 May and 2 June.

Ooredoo launches Myanmar's first 4G LTE service

Qatari-owned mobile operator Ooredoo Myanmar has launched the country's first commercial 4G LTE service in selected parts of Naypyidaw, Yangon and Mandalay. The firm says it plans to expand the high speed network to other locations, once it has been granted more spectrum by

the regulator. Customers are able to use their existing Ooredoo SIM card to access the new 4G network, although an LTE-compatible Smartphone or device is required to make use of the service. 4G data tariffs are available at the same price as 3G, with 'Internet Packs' ranging in price from MMK450 (USD0.38) for an allowance of 70MB (valid for 24 hours) to MMK27,000 for 5.5GB (30 days). Myanmar's Ministry of Transport and Communications (MCIT) is due to auction off 2600MHz frequencies later this year, with 1800MHz spectrum scheduled to go on sale in Q1 2017, or nine months after the 2600MHz tender. Until the additional frequencies become available, Ooredoo will use the 900MHz and 2100MHz bands for its 4G service.

Axiom Telecom starts Saudization program

The initiative aims to encourage more nationals to join the Kingdom's private sector through the training and employment of 400 Saudi professionals in the fields of sales and mobile services. The Memorandum of Understanding between axiom telecom and (TVTC) was signed by Abdul Kareem Al Thunayan, head of TVTC in the Eastern Region, and Jamal Al Bugmi, General Manager of axiom KSA, under the patronage of Ahmed bin Fahd Al-Fuhaid, Governor of TVTC. Also present at the signing ceremony was Mohammed Al Jawhar Al Taifi, Country Manager of Human Resources at axiom KSA. According to the latest Labor Market Update by the Saudi closed joint stock company Jadwa Investment, the Saudization ratio in the private sector stood at 20.7 percent in 2015. Meanwhile, figures show that the overall Saudi unemployment rate was at 11.5 percent last year. The private sector is expected to be to the main source of new jobs for Saudis, according to the Jadwa Investment report, supported by continued labor market reform, and changing cultural perceptions. Meanwhile, the Saudi mobile electronics market continues to demonstrate strength – the Kingdom accounted for 52 per cent of the mobile connected devices shipped across the GCC in Q1 of 2015, according to the International Data Corporation (IDC). "The success of any economy depends on the education and professional development of its youth, and that is why it is crucial that we empower young jobseekers with the right skills mix that will not only allow them to enter the private sector, but also grow and succeed," said Jamal Al Bugmi, General Manager of axiom KSA. "Collaboration between all members of the community, from parents and educators to employers and regulators, is instrumental to cultivating and sustaining a resilient Saudi workforce, and that is why we have launched this program together with the TVTC." Individuals who would like to apply for the program must be Saudi nationals, at least 18 years of age, currently unemployed, and not certified by other training programs. Applicants can visit www.axiomtelecom.com or call 920029466 to enroll or for

more information. According to the agreement, TVTC provides the venue, necessary equipment, and issues the certificates for those who successfully complete the course. Set to be a trailblazer for mobile electronics retailers in Saudi Arabia and the wider GCC, axiom telecom has 75 stores located across the Kingdom, with 4,500 points of sale, 21 distribution networks, and 264 Saudi employees. The acclaimed reseller, which is recognized for its unrivalled customer service, recently opened its doors to an experiential shopping concept at several areas in the Kingdom.

Pakistan-China fiber optic cable project goes live in Gilgit

Pakistan has launched the Pakistan-China Optical Fiber Cable Project, which is part of China-Pakistan Economic Corridor (CPEC), Daily Pakistan reports. The project is expected to improve connectivity in Gilgit-Baltistan. Customers in the area will soon have access to 3G and 4G services. The Optical Fiber Cable project will involve overall investments of USD 44 million and will be completed in two years. The Special Communication Organization will lay 820 kilometer long cable from Rawalpindi to Khunjarab. Following deployment completion, the cable is expected to provide an alternate telecommunication route between Pakistan and China.

Bahrain operator no longer in talks to buy Malta's GO

Bahrain Telecommunications Co (Batelco) is no longer in talks to buy Maltese telecoms company GO. Last week, Batelco announced it had submitted a bid for GO, which is 60 percent owned by Emirates International Telecommunications (EIT), a unit of Dubai Holding. These discussions have now ended, Batelco said in a statement to Bahrain's bourse. Batelco said negotiations had been for it to buy as much as 100 percent of GO but did not provide further details. GO said in a statement earlier on Tuesday that it had chosen former monopoly Tunisie Telecom as the final preferred bidder for the sale of its entire issued share capital. EIT, which is selling its stake in GO, also owns 35 percent of Tunisie Telecom, according to the Dubai-based firm's website. Dubai Holding is an investment vehicle owned by the emirate's ruler Sheikh Mohammed bin Rashid al-Maktoum. Its subsidiaries include hotel group Jumeirah and real estate developer Dubai Properties.

Djezzy marks World TelecomandInformation Society Day

Algerian mobile operator Djezzy celebrated World Telecommunication and Information Society Day on May 17 at the Sidi Abdellah cyber park near Algiers. Under the patronage of Post and ICT minister Imane Houda Faraoune Algerian experts and entrepreneurs debated the impact of ICT on the national economy and its direct repercussions on social progress. The ITU's annual WTISD aims to reduce the digital divide and to raise awareness about the prospects that the internet and other ICT technologies can deliver in the social and economic areas. The Orascom subsidiary said it was taking part in the event "to help young innovators and entrepreneurs find their potential and develop innovative and concrete solutions to help accelerate progress in realising Algeria's objectives in its quest for sustainable development and the establishment of a digital economy."

Bahrain's Batelco says submits bid for Malta's Go

Bahrain Telecommunications Co (Batelco) has submitted a bid for Maltese telecoms company Go, the Bahraini firm said. Emirates International Telecommunications (EIT), a unit of Dubai Holding, in July 2015 revealed it was planning to sell its 60 percent stake in Go. Batelco said in a bourse statement it had made a bid for Go, but did not explain whether this was for EIT's stake, the entire company or shares owned by other parties. EIT also owns 20 percent of the United Arab Emirates' No.2 telecommunications firm du and 35 percent of former monopoly Tunisie Telecom, according to its website. Dubai Holding is an investment vehicle owned by the emirate's ruler Sheikh Mohammed bin Rashid al-Maktoum. Its subsidiaries include hotel group Jumeirah and real estate developer Dubai Properties.

Zain Saudi launches tri-band LTE-A in Jeddah

Saudi Arabian operator Zain has introduced a tri-band carrier aggregation (3C) technology component on its LTE network, upping its maximum download speeds to 187.5Mbps, in partnership with equipment vendor Nokia. In order to deliver the superior speeds, the operator is aggregating 25MHz of spectrum in the 900MHz, 1800MHz and 2100MHz bands. Nokia provided its Flexi Multiradio 10 Base Station and frequency division duplex LTE (FDD-LTE) software, while also delivering network implementation and multi-layer optimization services. The LTE-Advanced (LTE-A) service is available to eligible subscribers with Category 6 (CAT 6) devices in several high-traffic areas in Jeddah. Ali Aljitawi, Head of Zain Saudi Customer Team at Nokia, said: 'With this project, Zain becomes the first telecoms operator in Saudi Arabia to carry out the refarming of spectrum in the 900MHz band from GSM to LTE, and using three component carrier aggregation to increase speeds on Zain's 4G network.'

Dialog to invest US$125 million in expansion in 2016

Sri Lankan telco Dialog Axiata will invest USD125 million in expanding its telecommunication and TV activities this year, according to local newspaper The Island. The operator's CEO, Hans Wijayasuriya, is cited as saying: 'We are quite optimistic about the way Sri Lanka's mobile communication sector is developing. Therefore, we are planning to invest in a big way in the future to give an experience on the latest technology for Sri Lankans.' Specifically, Dialog's investment will benefit its mobile and pay-TV networks, and its Dialog TV unit, while the operator has revealed it aims to reach one million Sri Lankan households with its pay-TV service in 2016, increasing its current reach of 700,000 homes. TeleGeography's GlobalComms Database notes that Dialog Axiata launched mobile services in March 1995 and now operates 2G, 3G and 4G networks in addition to offering time division duplex LTE (TD-LTE) broadband and TV services via its Dialog Broadband Networks (DBN) and Dialog TV units respectively.

Mideast is a fast-growing market for cloud services

The Middle East region is a fast-growing market for EMC 's cloud services, says Ted Newman, managing director, Cloud Services, Cloud/Global Services, of EMC Corporation. "The Middle East is definitely a fast-growing region for us and we have done a number of projects in Dubai and Saudi Arabia recently, focusing on things like SmartCity, data centre consolidation and hyper-cloud build outs etc. We are definitely starting to see a lot more work in the Middle East. The telecommunication providers are very advanced. We are working with them on network function virtualization, on becoming cloud service providers, and working with the enterprises around how to optimize data centers as well as add additional cloud service capabilities etc.," Newman told Gulf Times in an exclusive interview at the The Venetian Convention Center at Las Vegas last week. He was in the city in connection with EMC World 2016, the company's annual conference, attended by some 10,000 people including customers, analysts and media persons. "We have offices in Doha, Dubai and Saudi Arabia. We have worked with a few government entities and some military in the region, but I am not sure which ones I can mention publicly. We have operations in the entire Middle East and North Africa region, besides the Europe and the US," Newman said. Asked to explain the nature of cloud services EMC provides in the region in detail, Newman said: "The service that my team provides are professional services in the region. We also impart cloud services offered by vCloud Air and Virtustream. We work with enterprises on a direct basis where we come and set up projects for them. But the cloud portfolio that we have created has a number of different delivery vehicles ranging from technology implementation, consulting and professional services, to residency services where we come in and provide wall-based assistance for a while and finally mandate services, which are SLA- (service level agreement) based services. "The way customers contract with us are for projects or walls, or through SLAs and on top of that we have our portfolio which tries to provide a lifecycle approach to helping customers transform their IT service, utilizing hyper-cloud as an accelerator. We help them understand their current application portfolio, the status of their organization and their infrastructure and a build a business case for change. We help them implement a hyper-cloud solution, and optimize that solution and integrate them into the enterprise and finally we help them manage and maintain it."

How cost-effective are the cloud services that EMC offers in the region and how do the service providers benefit from them?

"From a cost perspective, if you are an enterprise with several thousand virtual machines, you can actually be more cost-efficient than public cloud providers, because you have the scale. But it's very efficient in terms of the services that we offer to help customers become brokers. By that I mean, giving IT the ability to provide services to businesses from both on-premises and off-premises service providers. That's what we are trying to enable as a key part of our consulting services."

What are measures the company has taken to mitigate security concerns that clients may have of its cloud services in the region?

"There are a couple of things that we work with in terms of being able to offer solutions for encryption for data inflight or data arrest, both onsite and offsite. We work with a number of service providers to help them design solutions to meet security compliance requirements. We also have a number of products and solutions on premises for that purpose. And then we have consulting services that will help a customer design and implement a management orchestration layer that delivers on security and compliance by policy, regardless of the endpoint. So, the key part of the security concerns is understanding the application portfolio well enough, to know what applies to a particular application, and therefore where that application can live. So we are trying to help the customers define a profile for applications that are appropriate to move outside, versus being onsite to address the security concerns."

Does the client come to know where his/her data is being stored? Which country or server they go into?

"That really depends on what sort of cloud service they are availing and their contractual relationship with us. From our services perspective, we focus on trying to help the customers develop policies that apply to various applications and profiles. We help them analyse their application portfolio and identify what are the security or compliance requirement that might preclude an application from moving to a particular country and put in place some processes to ensure that it doesn't happen. The migration does not take place in such cases."

What are the major advantages of a public cloud as opposed to private cloud?

"There are some capability differences due to the way they are designed. But the primary differences are who owns the primary infrastructure and how the clouds are defined and consumed. We are trying to get parity between the two in terms of the capabilities. We are not there yet. But the public cloud has an operating model and infrastructure that is optimized for providing consumable services, but enterprise IT in private clouds isn't just there yet in terms of being able to deliver those kinds of capabilities."

What does EMC tell the new clients who want to take up the company's services?

"For prospective clients, we think that the combination of our products and solutions for their services are the best approach to implementing a hyper cloud for them. We have a lot of experience with our largest customers, developing and implementing hyper clouds and maintaining them for them; those are incorporated back into our engineering processes for new products and services. We know how to very quickly stand up these capabilities. We follow the best practices in terms of optimizing our application portfolio in the clients' operating models and take advantage of the capabilities that the infrastructure and software delivers, and that, we think, sets us apart from our competition."

What does he envision for cloud services in the next five years down the line?

"Within five years, you would see IT services being consumed by APS

(Application Packaging Standard) as a part of a fully automated process in which infrastructure definition application and data living in a repository and builds being done in an automated fashion, as opposed to project-based integrations to stand up the infrastructure capabilities."

Tunisie Telecom to ramp up fiber rollout

State-backed operator Tunisie Telecom (TT) is set to accelerate its rollout of fiber-to-the-home (FTTH) infrastructure, the firm's CEO Nizar Bouguila confirmed at a conference last week, Agence Ecofin reports. The official also noted that the system had already been deployed in areas of Greater Tunis, including Sidi Bou Said.

SRG-1 Consortium Selected Xtera for Building a New Subsea Cable System across the Gulf of Oman

Multinet Pakistan, the leading domestic and international carrier in Pakistan, Omantel, the national operator of Oman and one of the largest wholesale carriers in the Middle East, and Xtera Communications, Inc. XCOM, -6.11% a leading provider of high-capacity, cost-effective optical transport solutions, today announced the signing of the turnkey supply agreement for the new subsea cable system Silk Route Gateway 1 (SRG-1). The new cable will be a direct highway from Muscat in Oman to Karachi in Pakistan, with a future extension to Gwadar in Pakistan. "The SRG-1 project is our ambition to restore the significance of the traditional silk route by establishing a digital gateway to the most budding telecom markets of the Asian subcontinent", said Mr. Rashid Shafi (SEVP & Chief Strategy Officer, Multinet Pakistan). "This new cable will fuel the massively growing demands of the Pakistani market and will bring up an unprecedented reach to China, Afghanistan and Central Asia," he further added. Mr. Sohail Qadir, Vice President, Omantel Wholesale, commented: "SRG-1 is another reflection of our commitment to the global carrier community to offer them with the most efficient routes. The SRG-1 bridges Asia to Africa and the West through a low latency network and we anticipate this to evolve as the telecom world's primary access to the region." "Selecting an innovative technology partner like Xtera is imperative to the overall success of the project. Xtera brings onboard the expertise and professional pedigree to develop an efficient optical submarine network which will enable Multinet and Omantel to offer cutting edge connectivity services to their customers," SRG-1 Consortium commented. Xtera will supply its turnkey 100G/100G+ optimized submarine system solution for this new project, including Nu-Wave Optima [TM] Submarine Line Terminal Equipment (SLTE), undersea optical repeaters, undersea branching units, cable, all marine services, project management, installation and commissioning. "We are delighted to be selected by SRG-1 Consortium to build this new submarine cable system as a further validation of our turnkey offering for high-performance, high-reliability subsea cable systems," said Jon Hopper, President and Chief Executive Officer of Xtera. "This new build project represents a second cable project for Xtera in the region after the award of the G2A subsea cable system between Oman, Puntland and Somaliland, and the second opportunity to deploy our branching unit after its official launch at SubOptic 2016 Conference in Dubai in April 2016."

TV audiences fall by 5% in MENA

Television is losing ground to the Internet as viewing platform of choice in the Middle East and North Africa, with average TV audiences down by 5% since 2014, according to a recent study. While almost all (95%) of nationals watch TV, the number of those who watch daily fell from 69% in 2014 to 64% in 2016, according to the latest survey conducted across six countries by the Northwestern University in Qatar (NU-Q) in partnership with Doha Film Institute (DFI). The decline is most notable in Qatar, whose daily TV viewership fell from 62% in 2014 to 41% in 2016, followed by Saudi Arabia (from 65% to 49%). In Egypt, the proportion of those watching TV each day fell from 70% in 2014 to 63% in 2016. In contrast, the share of Internet users spending time online every day jumped 11% from 63% in 2014 to 74% in 2016. Every day, across the Middle East, more adults consume online content than watch TV, except in Egypt and the UAE, where an equal amount of nationals do both every day. This increase in online consumption, however, has not yet materialized into revenues for video-on-demand (VOD) providers, according to the 6,058 adults surveyed in Egypt, Lebanon, Qatar, Saudi Arabia, Tunisia and the UAE. "While many nationals go online for entertainment, relatively few are willing to pay for online content. Only 17% of Internet users have paid for any online content in the past year, while 26% are willing to pay in the future. Just one in 50 Internet users paid to watch a TV series online in the past year (2%) and only 4% say they are willing to pay. The UAE is an exception; 15% of Emiratis are willing to pay for TV content online, though only 6% have paid for content online," the Media Use in The Middle East study said. Researchers also found that the region's women are more likely than men to watch TV every day (67% versus 60%), though both genders are equally likely to go online every day. "Nearly a quarter of nationals who watch TV have done so via the Internet in the past six months (23%); this pattern is relatively consistent across countries," the NU-Q/DFI study added. Nationals aged 18-24 are increasingly likely to favor being online to watching TV, with 79% using the Internet compared to 60% watching TV. They are also almost four times as likely to watch content online as those aged 45 or over, researchers found. A third of university educated nationals who watch TV do so online (34%), compared to only 3% of those with only a primary education. Television remains the platform of choice in the Middle East for watching films, however, with 90% watching movies on their TV sets. TV is also the most popular platform for listening to music (65% of all nationals), compared to the Internet and radio (41% and 35%). Internet and smartphone penetration are significantly higher in the GCC than other countries included in the survey. UAE has the highest Internet penetration rate, with most nationals connected to the Internet in 2016. Qatar and Saudi Arabia both have around 93% Internet penetration, followed by Lebanon at 84%. The lowest levels of Internet connection are found in Egypt (59%) and Tunisia (49%), though connections have increased by 14% in Egypt and 5% in Tunisia in the past year.

Saudi Arabia likely to be ranked among the five top countries in e-governance by 2030

Saudi Arabia is likely to be ranked among the five top countries in e-governance by 2030 because of the changes currently being put in place by the government. This is according to Ibrahim Al-Baez, former media professor at King Saud University, who said that the UN's 2014 report on e-government services around the world has seen the Kingdom ranked at 36 out of 193 countries surveyed, according to a report in a local publication recently. Al-Baez said that Saudi Arabia, according to the International Federation of Telecommunication (IFT) index on the use of information technology, has been given a performance

ranking of 70 percent. He said that these statistics show that the government is well on its way to be ranked among the top five countries in the world by 2030. The top five places are currently held by South Korea, Australia, Singapore, France and the Netherlands. He said these measures by the government would allow citizens to save time and effort in getting their paperwork completed by various government departments, ensure a high degree of transparency, and help fight corruption. He said government departments must make sure they can adapt to the new form of administration that would come with the provision of e-services and the use of the Internet. He cited the Interior Ministry is a good example of being at the forefront of technological innovation, especially with its Abshir system. According to the UN survey on its website, conducted by its economic and social affairs department, Saudi Arabia has risen rapidly in the rankings over the years, from 105 in 2003, 90 in 2004, 80 in 2005, 70 in 2008, 58 in 2010, to 41 in 2012. The UN's e-government index is an assessment of the website development patterns in a country, and infrastructure and educational levels, "to reflect how a country is using information technologies to promote access and inclusion of its people." It is a composite measure of three important dimensions of e-government, namely: provision of online services, telecommunication connectivity and human capacity, the website stated.

Countries in South Asia attract the highest number of attempted malware attacks

Pakistan, Indonesia, the Palestinian territories, Bangladesh, and Nepal attract the highest rates of attempted malware attacks, according to Microsoft Corp. Countries that attracted the fewest include Japan, Finland, Norway and Sweden, Microsoft said in a new study, based on sensors in systems running Microsoft anti-malware software. "We look at north of 10 million attacks on identities every day," said Microsoft manager Alex Weinert, although attacks do not always succeed. About half of all attacks originate in Asia and one-fifth in Latin America. Millions occur each year when the attacker has valid credentials, Microsoft said, meaning the attacker knows a user's login and password. A technology

known as machine learning can often detect those attacks by looking for data points such as whether the location of the user is familiar. On average, 240 days elapse between a security breach in a computer system and detection of that breach, said Tim Rains, director of security at Microsoft.

42% in Qatar read news online while Smartphone penetration on the rise

There are more people in Qatar who get their news online than some countries in the Middle East, according to a six-nation survey conducted by Northwestern University in Qatar (NU-Q) in partnership with Doha Film Institute (DFI). The study on media use in the Middle East released on Wednesday, found that more people are getting their news online than in print. Qatar leads in reading news online daily (42 percent), followed by Saudi Arabia (39 percent). Daily newspaper readership in Qatar is 32 percent and 25 percent in the UAE. The study sheds new light on the shift from TV to online video. Daily TV viewing dropped in Egypt by seven percentage points, Saudi Arabia (16) and Qatar (21), but television remains the platform of choice in the Middle East for watching films -- 90 percent say they watch films on TV, while most in the region now watch film and video online and fewer than five percent have paid money to do so in the past year. Amid concerns about online privacy, social media use in the Middle East is shifting from Twitter and Facebook to direct-messaging platforms such as Snapchat and WhatsApp. The study found video-centric Snapchat is among the most popular platforms in the high-bandwidth Gulf countries. The region is divided on whose responsibility it is to block objectionable content. More nationals in Egypt, Qatar and Saudi Arabia believe it is the responsibility of governments to block objectionable content, while majorities in the UAE, Lebanon and Tunisia believe it is the responsibility of the individual to avoid such content. The most evenly divided country is Saudi Arabia, where 50 percent believe responsibility lies with the government and 43 percent believe it lies with the individual. The biggest disparity is in Egypt, where 30 percent believe it is the responsibility of the individual compared to 66 percent who believe it is the responsibility of the government to block objectionable content. Use of Instagram in the region increased by 24 percentage points between 2013 and 2016 and Facebook's popularity has declined in the past three years by six percentage points. Twitter shows the biggest decline over the

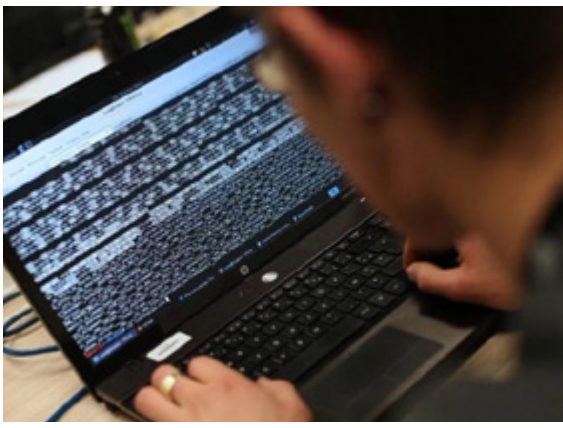
past three years -- 17 percentage points -- with a 12 percentage point drop from one year ago. Three-quarters of Egyptian Internet users say concerns about privacy have changed the way they use social media, second only to 89 percent of Saudis who agree. While Internet penetration levels are up in the region, Internet and Smartphone penetration are significantly higher in the GCC than other countries included in the survey. The UAE has the highest rate of Internet penetration with most nationals saying they are being connected to the Internet this year. Closely following are Qatar and Saudi Arabia, both at 93 percent Internet penetration, followed by Lebanon (84 percent). The lowest levels of Internet penetration is recorded in Egypt and Tunisia at 59 percent and 49 percent, respectively. However, Internet penetration in these countries is up since last year -- by 14 percentage points in Egypt and five points in Tunisia. Smartphone penetration is highest in the UAE (99), Qatar (95), Saudi Arabia (95), and Lebanon (90), and lowest in Egypt (61) and Tunisia (43). TV is the most used platform for listening to music (65 percent of all nationals), compared to the Internet and radio (41 and 35 percent). The Middle Eastern music is proving significantly more popular than American music across the region. Similar to the trends in film viewing, younger people are more likely to listen to non-Arabic music (one-quarter of those between 18 and 24 years old listen to American music, compared to only four percent of those above 45) but are also more likely to listen to music from their own country than older people. Younger adults (18-24) are also nearly twice as likely to listen to music online as on the radio (56 percent compared to 31 percent), but only six percent say they have paid to do so in the past year. The comprehensive annual survey examines the use of and attitudes toward media among 6,058 adults (4,529 nationals) in Egypt, Lebanon, Qatar, Saudi Arabia, Tunisia and the UAE.

Pakistan Leads in MBB Penetration Growth Rate in the Region: GSMA

Enough has been said negative and discouraging about the ICT growth of Pakistan but the fact remains that Pakistan leads the race in Mobile Broadband in the region. It is time to appreciate some of the worth praising steps taken by the Government ICT Managers i.e. MoITT and PTA that has helped the country to improve its position in the region just in the last couple of years. The GSMA Intelligence stats indicate that the rate of Mobile Broadband penetration of Pakistan has witnessed phenomenal growth specially if compared to other regional countries like Bangladesh, India and Indonesia. Pakistan leads the race when compared to its regional peers such as India and Bangladesh hands down and this just happened in the past two years. The NGSMA auction in 2014 and the resultant growth has seen Pakistan leading the race for MBB penetration of 19% and still on the increase showing 185% YoY growth. Gone are the days when mobile internet was rare facility and there was only one person using it in a home. The growing Smartphone penetration, availability of affordable Smartphones and above all access to 3G/4G has enable Pakistan to boost its standing across the region.

Pakistan among Biggest Victims of Malware Attacks: Microsoft

According to the recent report of Microsoft Crop, Pakistan has enlisted among the biggest victims of malware attacks. Other countries like India, Indonesia, the Palestinian territories, Bangladesh, and Nepal also attract the highest rates of attempted Malware attacks. Countries that attracted the fewest include Japan, Finland, Norway and Sweden, Microsoft said in a new study, based on sensors in systems running Microsoft anti-malware software. According to the report about half of all attacks originate in Asia and one-fifth in Latin America. Millions occur each year when the attacker has valid credentials. Millions occur each year when the attacker has valid credentials. Microsoft also added that



meaning the attacker knows a user's login and password. A technology known as machine learning can often detect those attacks by looking for data points such as whether the location of the user is familiar. On average, 240 days elapse between a security breach in a computer system and detection of that breach, said Tim Rains, director of security at Microsoft.

Ooredoo Qatar awards Nokia new three-year mobile expansion deal

Nokia has agreed a new three-year deal with existing cellco partner Ooredoo Qatar to expand and upgrade mobile network infrastructure nationwide. Nokia has previously provided LTE-Advanced (LTE-A) carrier aggregation (CA) technology for Ooredoo's network in Doha, enabling maximum 375Mbps (downlink) mobile data speeds, while the latest expansion contract covers all mobile technologies (2G, 3G, LTE and LTE-A). 'We continue to enhance the Ooredoo Supernet [the name given to Ooredoo's converged network] to deliver the best possible internet experience, working with a range of international technology leaders such as Nokia,' said Ooredoo Qatar's CEO Waleed Al-Sayed, adding: 'By deploying these cutting-edge technologies from Nokia, we will continue to actively boost network performance from 2G through to LTE-A, and deliver a host of social, financial and business benefits for Qatar.'

Etisalat sells Sudanese fixed-line firm to Zain

Etisalat inked a deal to sell its majority shareholding in Sudanese telco Canar Telecommunication Company to Zain. Under the terms of the deal, Zain will pay 349.6 million dirhams (€83 million) for Etisalat's 92.3% stake in Canar, implying a per-share price of AED17.504, the United Arab Emirates-based operator disclosed in a stock exchange filing earlier this week. The deal requires the approval of Sudan's telecom regulator, the Sudanese National Telecommunications Corporation, and national competition authorities. Etisalat did not say when it expects the transaction to close. Zain claims to be Sudan's largest mobile operator, with 11.87 million customers at the end of last year and a 42% market share. The telco said it saw a 91% increase in data-related revenues in 2015 and expects further growth this year, when it expects to be granted a 4G license in Sudan. The acquisition of Canar will also give it a fixed-line presence in the country. Canar offers home and business voice telephony services and Internet access via fixed and wireless local loop infrastructure.

Zain Launches LTE Services in Sudan

Zain says that it has launched 4G LTE services in Sudan. The launch of the 4G network was announced at a press conference last week in Khartoum. In the first stage 4G coverage will be extending to the capital Khartoum; Medani; Port Sudan and El Obeid with these central and populated areas being launched in cooperation with Ericsson. 4G services will be extended to other regional centers across the country gradually with the additional cooperation of Huawei. Zain Sudan initially launched 4G services with nearly 300 sites that are on air now, with 21 other cities in the regions set to gain coverage by the end of 2016, with 15 of them by the end of June. The population coverage of the 4G network will reach over 20% in the first stage of roll out. Managing Director and CEO, Elfatih Erwa affirmed that the introduction of 4G places Sudan at the forefront of countries providing mobile data services on the continent, and features Sudan in an advanced position technologically. Zain is keen to transport its customers on a journey towards the cutting edge digital world, with 4G also set to bolster the mobile experience of 2G and 3G services by adding additional network capacity. "Zain remains committed to delivering the highest quality of service to its customers in all the markets in which it operates, and highly appreciates the opportunity to introduce 4G into Sudan. The authorities in Sudan showed wisdom and foresight in granting a 4G licence to Zain at a sensible fee amount, as it allowed Zain to invest more in technology and infrastructure, as well as to offer competitive pricing for 4G services. The Sudanese people are ultimately the beneficiaries of this wisdom."

Digital transformation can double Qatar's commercial output to $4bn by 2019

Digital transformation can double Qatar's commercial output to over $4bn by 2019, some leading organizations said at a technology event here yesterday. With hyper-connectivity and e-commerce, Qatar's business-to-business and business-to-consumer markets are set to grow from $2.3bn in 2014 to $4.3bn in 2019, according to the Ministry of Transport and Communications. At the 'SAP Qatar Forum', Qatar's energy, public sector, transport, healthcare, and construction leaders emphasized the role of real-time insights in the 'Internet of Things' era and digital Economy. Business intelligence can drive 10% annual revenue growth, said a recent IDC report. Nakilat, which hosts the world's largest LNG shipping fleet, with its partner Fujitsu, has deployed the SAP HANA private cloud platform for real-time financial and ERP insights. "In an era of lower oil and gas prices, now is the time for Qatar's oil and gas companies to invest in the next wave of technology. Real-time analytics are helping Nakilat to transform our supply chain, while fuelling research and development to ensure Qatar remains a world hub for energy innovation," said Hamad Rashid Suwaid, Information Technology manager, Nakilat. Abdullah Abdulghani

and Brothers (AAB), one of Qatar's largest auto dealerships, with partner HICRON Sp. z.o.o., received an SAP EMEA Quality Award for its business transformation project. "AAB is committed to helping businesses and residents receive the best customer service. The real-time analytics platform has streamlined AAB's supply chain, enhanced the customer experience, and helped to diversify products and services," said Dr Nasser Abdulghani al-Abdulghani, acting CEO, AAB. During his keynote, Steve Tzikakis, senior vice president and general manager, SAP South Europe, Middle East, and Africa, emphasized that mega-trends such as hyper-connectivity, computing power, cloud, and the block chain are transforming how we work, live, and communicate. "Qatar's organizations are amongst global leaders in using a digital core to transform in today's digital economy. The digital transformation of their organizations is a catalyst for diversified economic growth, which is aligned with Qatar National Vision 2030. Visionary CEOs are using cloud-based real-time insights to make quick, decisive actions, expand services, and drive omni-business models. This results in a simpler, agile organization, which delivers new levels of customer engagement," said Tzikakis.

60 million cyber attacks reported in KSA in one year

The Kingdom recorded more than 60 million cyber attacks last year, with sectors such as oil and gas, banking and telecommunications being the main target, an expert in information security has said. "The Kingdom is the most susceptible country in the Middle East to such attacks due to its key status economically and politically," Mohammed Amin was quoted as saying by local media. Contemporary security problems and infiltrations are especially seen among institutions dealing with oil and gas and desalination in the Gulf because they rely on industrial equipment that can be controlled remotely via the Internet by hackers, he said. The current trend to link everything to the Internet, especially in smart cities, requires additional attention on how to protect such systems, such as use of smart solutions and monitoring systems offered by some companies to repel such attacks, said Amin. As for hacking into the banking system, he said such attacks can be categorized into three levels: Hacking of individual bank accounts, followed by ATMs and the other banking systems. "Such cyber attacks on 100 banks around the world resulted in theft of $2.5 million. Complex attacks are executed by criminal groups who use various means to transfer funds and change account names," he said. Amin stressed the importance of guaranteeing protection by putting in place a clear and cost-efficient strategy, as well as promoting awareness among users about such crimes.

RealVU DTH TV service takes to the air in Bangladesh

Bangladesh has its first direct-to-home (DTH) satellite TV service after the launch of RealVU by operator Beximco Communications at outlets in Dhaka, Sylhet and Chittagong. Reception equipment for the DTH service, which is a joint venture between Beximco and the Russian investment and industry holding company GS Group, will be available in authorized partner outlets in every other division in Bangladesh from August 2016. The pay-TV service's signal is already available across the South Asian country. "RealVU customers will be able to watch 105 channels with our package and enjoy digital quality picture and clear sound. The package will involve the most popular TV channels including five in HD format. Moreover, the RealVU subscribers will enjoy other advantages such as recording function and smart electronic program guide," said Dmitry Lapitskiy, CEO, Beximco Communications Limited. A set-top box and dish antenna from an authorized partner are required to receive RealVU, at a cost of BDT 4,499 (US$57.37) + VAT. RealVU will provide its customers with a two-year warranty for the set-top box along with 24/7 customer service, while the partner will install the reception equipment. Beximco was awarded a DTH license by the Bangladesh Government in December 2013.

Telenor mulling India options, needs more spectrum

Norwegian telco's CEO hints at Indian exit if his company cannot secure more frequencies; Telenor writes down value of Indian unit in Q1. Telenor this week lent credence to reports that it is considering pulling out of the Indian mobile market when CEO Sigve Brekke made it clear that his company needs to secure more spectrum to remain competitive and is considering its options for the future should it fail to do so. "The long-term presence in India is dependent on our ability to secure additional spectrum," Brekke said, speaking on the Norwegian incumbent's first quarter results call. As it stands, Telenor is unable to compete in the growing mobile data market, he explained. "We need to find a solution and pay a price we can justify," Brekke said. "That's why we are looking at the

upcoming auction, that's why we are looking at potential spectrum-trading opportunities," he said, although he declined to provide any further information on what a justifiable price might be. "We need to be pragmatic, to consider other alternatives," if the acquisition of more spectrum turns out to be impossible, he said. India is planning a multi-band spectrum auction this summer, although details are yet to be fully finalized. Spectrum-trading in the country is now an option and a couple of early deals have been announced although they have yet to be officially approved: Bharti Airtel recently agreed to acquire 1800-MHz spectrum from Videocon in six circles, and 2.3-GHz frequencies from Aircel in eight. The country is also witnessing the beginnings of consolidation: Reliance Communications is currently holding exclusive talks with Aircel with a view to brokering a deal, for example. "Reflecting on the consequences of this [spectrum-trading and consolidation] we have found it prudent to make [an] impairment," Telenor's acting CFO Morten Karlsen Sorby said. Telenor adjusted down the valuation of its Indian business by 2.9 billion kroner (€314 million) in Q1, driving it to an operating loss of NOK3.1 billion in India. Revenues at Telenor India grew by 7%, in local currency terms, to NOK1.52 billion, but ARPU fell by 8% and customer additions were slower than in the year-ago quarter at 1.52 million, leaving the firm with a 44.15 million-strong base across its six operating circles at the end of March. In terms of revenue share, Telenor has "a clear number four position," in those circles, Brekke said. However, "we are in India to make money. We are in India to have a return," he said. If Telenor cannot boost its spectrum position, via auction or trading deals, "then we need to look at other alternatives," he said.

Pakistan telecom sector makes significant contributions to national budget

Telecom sector has contributed an amount of Rs745 billion to the national exchequer in terms of regulatory duties and taxes during the last five years, according to the annual report of the Pakistan Telecommunication Authority (PTA). A higher contribution of Rs243.8 billion was made during 2013/14 due to Pakistan Telecommunication Authority's (PTA) extraordinary deposits of Rs96.5 billion of the total value of 3G and 4G spectrum auctions in April 2014. In 2014/15, the telecom sector contributed Rs126.6 billion to the national exchequer in terms of regulatory duties and taxes. The sector is a significant source of revenue generation for the government in terms of initial and annual license fees, initial and annual spectrum fees, Universal Service Fund (USF) and Research and Development (R&D) Fund contributions, Access Promotion Contribution(APC) for USF Numbering Charges license, application fee, etc, and taxes, including general sales tax (GST) federal excise duty (FED), SIM activation tax, advance withholding tax (WHT), sales tax on mobile handsets, Customs duties and other taxes. The PTA's annual report said overall telecom sector taxes and levies in Pakistan are considered higher as compared to the taxes on telecom services in other regional countries. Further GST (19.5 percent in Punjab and Khyber-Pakhtunkhwa, 18 percent in Sindh and 18.5 percent in the rest of Pakistan) and WHT (14 percent) on telecom services are much higher as compared to the average 16 percent GST and 10 percent WHT in other sectors. In addition, the report said in 2015/16 budget, the governments of Punjab, Sindh and Khyber-Pakhtunkhwa have imposed GST on data internet services in the range of 18 percent to 19.5 percent. The government of Punjab has recently indicated to withdraw internet tax that would have a positive impact and it is expected that the rest of the provinces will also follow suit. The PTA and telecom industry believe that rationalization of taxes on the telecom sector will enhance sector's growth, which may lead to better collections for the government levies in the long run. In this regard, the telecom industry has submitted tax proposals to the government for consideration. According to the proposals, the government is currently charging WHT at the rate of 14 percent from the telecom consumers, which is unjustified because most of the consumers are poor and below the minimum threshold requirement of Rs400,000 for filing the tax return and; hence, nontax filers. They are unable to claim advance income tax at the end of the fiscal year. Therefore, WHT tax deduction system on the telecom services needs to be reviewed by the Federal Bureau of Revenue (FBR) and should be rationalized in order to save the poor people from undue taxation. Regarding activation tax on the issuance of SIMs, the government charges Rs250 that was imposed in lieu of the Customs duty in 2000. However, currently the government charges Customs duty on import of mobile handsets in addition to the activation tax. The cellular operators are of the view that activation tax should be abolished to avoid double taxation. The telecom sector has still not been granted the industrial undertaking status by the FBR. In the absence of industrial status, mobile operators are unable to adjust the income tax paid at the time of import of telecom equipment, which is treated as a final tax liability, the proposals said. Therefore, industrial undertaking status needs to be given to the telecom sector, which was also agreed by the FBR and the Ministry of Finance, it added.

Necessities of the Evolving Market and Relevant Legislation and Regulation - A Regulatory Perspective

A regulation is generally defined as any mechanism by which governments, their subsidiary bodies, and supranational bodies set requirements on industry and businesses that have legal force. The term may thus cover a wide range of mechanism: from primary laws and secondary regulations to implement primary laws, subordinate rules, administrative formalities and decisions that give effect to higher-level regulations, and standards. Regulations may originate from non-governmental or self-regulatory bodies to which governments have delegated regulatory powers. Regulations do not only address the activities of the private sector. They include the rules and procedures that frame the internal operation of public authorities, including ministries and government agencies. Most countries have a well-established hierarchy of regulations, starting with their Constitution. They usually require that lower-level regulations must not conflict with higher-level regulations, and that the former must derive their legitimacy from the latter.

Regulation, together with fiscal and monetary policy is one of the three key levers of state power, and of significant importance in shaping the welfare of economies and society. The objective of regulatory policy is to ensure that the regulatory lever works effectively, so that regulations and regulatory frameworks are in the public interest. Worldwide regulatory policy is taking shape in different ways. Different pathways, however, are tending towards common objectives. Many countries did not have a regulatory policy ten years ago but now nearly most of the countries have it now.

To reap the benefits of today's sector friendly regulations and regulatory policies there is a dire need for telecom operators to expand their digital visions in view of both business needs as well as socio-economic imperatives. The success now increasingly depends on gaining a deeper understanding of the evolving digital ecosystem and the value-chain, developing or acquiring the capabilities needed to flourish, and ensuring that such ecosystems remain sustainable. New partnership-oriented mindset and

strategies need to be adopted across the stakeholder spectrum. For telecom operators to thrive and not simply survive such approaches are integral to future success.

True progress in the development of the digital economy is only possible if stakeholder inclusion is enabled and industry strives for it by bringing the public and the private sector leadership together. Today the business and our ecosystem are very complex. Fortunately, the governments and business leaders are not only ready to embrace new insights and mutually rewarding ways to rethink, they are also fully willing to define their success with each other's direct involvement. Moreover, fortunately government leaders are becoming fairly more open toward understanding the pressing issues that the telecom sector is facing.

"The Global momentum in digital transformation adoption presents an opportunity for governments and private sector leaders to demonstrate the true value of open collaboration in driving cross- industry success and innovation. ICT advancements in telecommunications play a particularly important role as the enabler of building knowledge-based economies. Today, connectivity serves as the platform for all innovation to function and benefit people. Driven by responsible operations, ongoing innovation and open collaboration, telecom equipment manufacturers have established a competitive ICT range of end-to-end solutions in telecom and enterprise networks, devices and cloud computing, all leading to enabling a future information society and building a better connected world.

In today's market environment the market failure is considered as state failure. Experts have highlighted that there can be state failure as well as market failure, that is to say, the failure of the state to deliver on objectives for well-functioning markets and social welfare. The state itself is not perfect, and is made up of structures and individuals who sometimes pursue personal objectives in the name of the general interest. Bureaucracies can be self interested. Benign neglect and regulatory capture are real dangers. This implies the need for closer scrutiny of the issues raised by state intervention, and its benefits. These issues were brought into sharp focus by the 2008-09 financial crisis. Growing interest in distributional equity and sustainable development had already considered distribution among the classes to be the central question of political economy. Many countries are concerned about distributional equity. The argument is that economic management should be carried out in such a way as to maximize the welfare of the most disadvantaged, paying attention to distributional consequences of policy actions, though not beyond the point at which they would obstruct on overall prosperity. This increased attention to social impacts has also been associated with the need to give greater weight to environmental concerns and the broader issue of sustainable development.

The OECD Countries have issued a very comprehensive guiding principle for Regulatory Quality and Performance like:

- Adopt at the political level, broad programs of regulatory reform that establish clear objectives and frameworks for implementation.
- Assess impacts and review regulations systematically to ensure that they meet their intended objectives efficiently and effectively in a changing and complex economic and social environment.
- Ensure that regulations, regulatory institutions charged with implementation, and regulatory processes are transparent and non-discriminatory.
- Review and strengthen where necessary the scope, effectiveness and enforcement of competition policy.
- Design economic regulations in all sectors to stimulate competition and efficiency, and eliminate them except where clear evidence demonstrates that they are the best way to serve broad public interests.
- Eliminate unnecessary regulatory barriers to trade and investment through continued liberalization and enhance the consideration and better integration of market openness throughout the regulatory process, thus strengthening economic efficiency and competitiveness.
- Identify important linkages with other policy objectives and develop policies to achieve those objectives in ways that support reform.

The International Telecommunication Union in GSR13 held in Poland issued Best practice guidelines on the evolving roles of both regulation and the regulators in a digital environment declaring:

Mindful of the critical role electronic communications play in today's digital society, and recognizing the need for efficient ICT regulation that will both respond to changing market expectations, and improve social inclusiveness, safety in case of disaster and development, we the regulators participating in the 2013 Global Symposium for Regulators, recognizing that regulatory reforms take place across a wide continuum of evolving perspectives, have identified and endorsed these best practice guidelines as innovative and smart regulatory measures that will facilitate the inclusion of all.

1. Innovative and smart regulatory approaches fostering equal treatment of market players without putting extra burden on operators and service providers Stimulating services uptake and access to online services and applications
2. The evolving role of the regulator: the regulator as a partner for development and social inclusion
3. The need to adapt the structure and institutional design of the regulator to develop future regulation.

Javaid Akhtar Malik
Regulatory Affairs
SAMENA Telecommunications Council

Reference:
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REGULATORY NEWS

REGULATORY UPDATES

TRAI to start consultation for sustainable model

The Telecom Regulatory Authority of India (TRAI) will soon begin consultations to explore a sustainable model for wi-fi in public places, the body's chairman R S Sharma told The Indian Express in an exclusive interview The public wi-fi model has hitherto been explored and worked into by both the government and private sector players but remained largely unsuccessful. In 2014, the Department of Telecom (DoT) was working on a mechanism to provide wi-fi hot spots in cities with population of over 10 lakh and in tourist centers. It held several meetings with telecom operators for the scheme but could not decide if the service was to be kept free or chargeable. The scheme was part of the government's flagship Digital India program, which has been approved by the government. "What we want is that user should be able to move from one place to another and seamlessly get connected, and without much hassles he should be connected. This is the architecture that we're looking at — interoperability between wi-fi providers, seamless payment methods. These are some of the aspects of how you can create a structure which enables the wi-fi in public places," Sharma said. "These are some of the aspects of how you can create a structure which enables the wi-fi in public places," he added. Both private and public sector companies such as Google, RailTel MTS, Mahanagar Telephone Nigam Ltd (MTNL), Tata TeleServices Ltd, etc have brought out various models for providing wi-fi at public places such as railway stations, airports, coffee-shops, etc. The bulk of free wi-fi hotspots in India are in urban centers such coffee shops, which help them, attract customers, or are sponsored by advertisers. According to latest available information, state-owned Bharat Sanchar Nigam Ltd (BSNL) has installed 2,505 wi-fi hotspots across the country until March. BSNL is expected to provide these facilities with a minimum speed of 2 Mbps at every hotspot and will also extended the facility to more locations. Whether free wireless internet services in India are sustainable enough is a question that TRAI will aim to explore during its consultation process, Sharma said. "(The public wi-fi maybe) not necessarily free, because free may not be sustainable in the long run. So, if you want to have a really ubiquitous wi-fi availability, then it has to be based on some sustainable business model, which we are going to explore," he said.

T-Mobile US shells out for more 700-MHz airwaves

T-Mobile US this week revealed that it has brokered another deal to acquire spectrum in the 700 MHz band, this time

covering the greater Chicago area. The U.S. mobile operator has agreed to acquire the airwaves from AT&T for an undisclosed sum. The spectrum is actually licensed to an entity known as Leap Licenseco and was picked up by AT&T as part of its purchase of smaller rival Leap Wireless just over two years ago. The deal is subject to regulatory approvals and other conditions, and T-Mobile expects it to close in the fourth quarter of the year. Once it has completed the transaction, the telco will begin using the spectrum for its Extended Range LTE service in the Chicago area. Extended Range LTE carries signals twice as far and works four times better in buildings than standard LTE, T-Mobile said. It launched Extended Range LTE in December 2014 and the service now covers 195 million Americans. The rollout of the service was facilitated by T-Mobile's ongoing quest to pick up additional 700-MHz frequencies. In early 2014 T-Mobile announced the acquisition of 700-MHz – or A block – spectrum from Verizon in a multi-billion-dollar deal. "Since then, the company has embarked on a very successful strategy to roll-up outstanding A block licenses, executing 23 different agreements to beef up the company's 700-MHz spectrum portfolio," T-Mobile said, in a statement. "And that's in addition to the company's upcoming participation in the 600-MHz incentive auction," it said. The telco added that once this latest 700-MHz deal closes, it will hold A block spectrum that covers all of the 10 markets in the U.S. with the potential to reach 269 million Americans – 83% of the population – with Extended Range LTE.

EU to extend broadcast regulations to OTT sector

The European Commission has approved a proposal to reform the Audiovisual Media Services Directive and extend a number of regulations to online video platforms. The main changes to the directive will see online platforms required taking a more active approach to taking down harmful content, such as pornography and violence, and content that incites hatred. They will also be required to ensure at least 20 percent of the content in their catalogue is of European origin, and EU states will be allowed to require online video providers to contribute financially to content production. In an attempt to help broadcasters compete better with the online sector, they will be given more freedom in when they show advertising throughout the day. While the cap of 20 percent of time between 07.00 and 23.00 hours for ads will be maintained, the maximum of 12 minutes of ads per hour will be lifted. To ensure broadcast regulators remain independent of government, the European Regulators Group for Audiovisual Media Services will be given more power to assess regulatory codes of conduct and advise the European Commission. The Commission also signaled that more regulations for online service providers could be forthcoming. Following a wide-ranging public consultation last year on online platforms, the EC issued a communication saying it will take a "targeted, principles-based approach" to dealing with some of the problems flagged by consumers and businesses. This will include a cautious approach to start, supporting industry co- and self-regulation to ensure flexibility. In response to calls from telecom operators for a 'level playing field' with OTT providers in terms of regulation, the EC said it will work from the principle that comparable services will be subject to comparable regulations. This will be taken into account in the ongoing reviews of the telecom regulatory framework and ePrivacy Directive, where some rules for telcos may be withdrawn and some rules such as confidentiality requirements may be extended to online services. The approach was broadly welcomed by the European Telecom Network Operators association (ETNO). The liability terms in the eCommerce directive will be maintained and certain measures developed to address specific sector problems. For example, the Commission expects to announce soon a code of conduct on combating hate speech developed with the internet industry. In terms of consumer protection, measures in the separately announced e-commerce package will do more to ensure sponsored search results are clearly flagged, and the EC also wants the industry to step-up voluntary efforts to tackle practices such as fake or misleading online reviews. In addition, the Commission will encourage online platforms to recognize different kinds of secure electronic identifications (eID) which offer the same reassurance as their own eID systems. Further regulation addressing problems raised in the public consultation by businesses and suppliers dealing with online platforms, such as concerns of unfair terms and conditions, in particular for access to important databases, and market access and general lack of transparency, has been put on hold. The Commission said it will determine by spring 2017 whether additional EU action in this area is needed.

PTA gives conditional approval for Mobilink/ Warid tie up

Sector regulator the Pakistan Telecommunication Authority (PTA) has given conditional approval to the merger of mobile operators Mobilink and Warid. In its notice, the PTA included a raft of conditions and clarifications regarding the merger process. Notably, though, the watchdog made specific requirements regarding the decommissioning of unused base transceiver stations (BTS). The PTA ordered that all BTS sites of both companies should remain operational for a minimum of four months post-merger and that any unwanted sites must first be offered to other operators sharing the facilities. In the event that there are no other tenants, or they do not wish to acquire the surplus sites, Mobilink/Warid will 'apply a judicial and transparent process to transfer ownership of the BTS sites to other telecom licensees, including tower licensees in order to avoid possible dismantling of BTS sites.' Further, the combined entity must submit a new reference interconnection offer (RIO) to the PTA within six months of their merger, and any existing interconnection agreements between Warid and other licensees will be transferred to the enlarged company. As previously reported by TeleGeography's GlobalComms Database, the merger

was approved by the Competition Commission of Pakistan (CCP) in March this year, albeit with a number of caveats, including obliging the combined company to facilitate infrastructure sharing and to provide wholesale access to MVNOs.

Algeria orders closure of all private TV stations - report

Algerian Prime Minister Abdelmalek Sellal has threatened to close the country's around 50 private TV channels in an effort to quell the "anarchy" in the industry, reports news site Le360.ma. Communications Minister Hamid Grine went further, ordering "all private channels" to be closed. The reason given is simply "a lack of agreement". The Moroccan website ventures to write that the Bouteflika "clan" is increasingly making felt this "liberticidal temptation" in an effort to eliminate any wish for opposition to its perenity in power. It adds that the Algerian administration's position is reflected in the presidential clan's strong arm tactics against Kabyle businessman Issad Rebrab's attempts to buy daily newspaper Al Khabar.

Regulatory risks increase for telcos in Sri Lanka

The regulatory risks have risen for telcos since the new government assumed office in 2015. The government has increased taxes on telcos in an effort to shore up revenue. Effective from May 2016, the government imposed a value-added tax (VAT) of 15% and nation building tax (NBT) of 2% on telecom services which will increase tax on voice and data services to 50% and 32%, respectively (earlier: 28% and 12%). The government had abandoned an earlier tax proposal which could have diluted the industry's EBITDA margin by an average of 6%-7%. Fitch revised the outlook on Sri Lanka's telco sector to stable from negative on January 18, 2016 following the new government budget.

Spectrum agency hit for diverting funds to ICT projects

A special probe has found that the National Frequency Management Unit (NFMU) illegally diverted funds to finance the previous government's 'One Laptop Per Family (OLPF)' and e-government policies, Demerara Waves reports. A total of GYD1.67 billion (US$7.76 million) raised by the NFMU through license fees were diverted to the two projects between 2010 and 2015, rather than going into the Consolidated Fund, the investigation found. The report noted that the NFMU does not have the authority to meet those expenses and that the funds should be repaid: 'Total disbursements to cover operational expenses of the OLPF and e-government projects amounted to GYD1.029 billion and GYD278.17 million respectively [between 2012 and 2015]. We recommend that repayment be sought immediately from the relevant agency.' The incorrect inclusion of the disbursements as an expense of the NFMU 'distorted' the regulator's operating results, the report added, noting that the NFMU also owes the Guyana Revenue Authority (GRA) more than GYD1 billion.

FCC received 21,000 net neutrality complaints in one year

Consumer feedback to the Federal Communications Commission indicates net neutrality is firmly lodged in the US public consciousness a year after rules came into effect. However, according to figures published by the US regulator, it is not the most complained-about subject. That's billing, perhaps unsurprisingly, since it involves users' money. Billing complaints numbered 23,000. However, as Ars Technica points out, the number of net neutrality complaints is a raw number, which is not verified by the FCC itself. Actually, the regulator has yet to identify any violations since its rules were passed in June 2015. But the numbers show that net neutrality is firmly lodged in the collective mind of the US public. The rules ban broadband providers, both mobile and fixed, from blocking, throttling or offering paid prioritization over their networks. Indeed, some users might be using the net neutrality heading for unrelated subjects, such as slow speeds or data caps, which upset them. There is no breakdown between mobile and fixed in the complaints numbers. As well as being a way for users to air a grievance, complaining has a practical purpose too, since operators and ISPs are required to respond to each complaint within 30 days. Hence it can be a more effective method than going straight to the operator or ISP.

UK telcos suggest Openreach changes

UK telcos Vodafone, TalkTalk and Sky, plus the Independent Networks Cooperative Association (INCA) and the Federation of Communication Services (FCS), have jointly written to industry regulator Ofcom outlining ten proposals which they say will improve the operation of BT's network unit Openreach. Ofcom stopped short of recommending a full structural separation of Openreach from BT in a review published in February this year, though it did say there should be changes to the way the division was governed. The group of BT

rivals is suggesting ten changes for Openreach:

- it should become a legally separate company
- it should have an independent board
- it should be allowed to make independent investment decisions
- it should consult with customers about its future strategy
- it should have full control over its assets
- it should provide all services on the same basis, no matter the customer
- it should have a separate corporate identity and brand
- it should not inhibit investment by independent network operators
- it should make BT Consumer's procurement truly contestable
- an independent body should be created to oversee the transition to a reformed Openreach.

Pakistan launches m-banking regulations

The Pakistan Telecommunication Authority (PTA) has released 'Regulations for Technical Implementation of Mobile Banking'. The new regulations came into force on 6 May. The PTA says these regulations apply to telecom operators and third-party service providers to offer technical services for mobile banking through service level agreements with authorized financial institutions by means of any of the mobile banking models prescribed in these regulations. Under the new regulations, all telecom operators that have a valid license can provide technical services to financial institutions for provision of m-banking services, without obtaining a separate license for this purpose from PTA under the 'one-to-one model'. Third-party service providers that have a license from PTA and authorized for providing technical services for m-banking by SBP will be authorized to provide technical services to AFIs and telecom operators for offering m-banking services under the 'any-to-any model'. The main objective of third-party service providers should be to enable interoperability among financial institutions and telecom operators.

Failed UK Telecoms Merger Has Mixed Implications for Wider European Market

While the European Commission's decision to block CK Hutchison's planned acquisition of Telefonica's British mobile operator O2 is credit negative for both Telefonica and CKHH's UK telecoms operations, its consequences will be mixed for Europe's telecoms sector, says Moody's Investors Service today in a new report. "The failed deal will likely accelerate fixed-mobile consolidation in the UK with Telefonica looking for another buyer for O2. On the other hand, we expect the pace of in-market mobile consolidation in the broader European telecoms market to slow as the fear of increased regulatory limitations rises," says Iván Palacios, a Moody's Senior Vice President and author of the report. UK fixed-line providers Virgin Media Inc. (Ba3 stable), Sky plc (Baa2 stable) and Talk Talk (unrated) are the most likely candidates to buy O2. A merger with any of these players is unlikely to have the same level of regulatory restrictions as a mobile merger, as it would not remove one of the mobile players in the market. However, the collapse of the merger is credit negative for European telecoms as it will make mobile in-market consolidation less likely. While the European Commission has approved similar deals in the past, in recent months it has toughened its stance toward approving mobile consolidation mergers. This is because it believes remedies, such as allowing more Mobile Virtual Network Operators into the market, have been ineffective in terms of maintaining healthy competition. This is the second merger between mobile operators in Europe (the first one was the merger between Telia Company AB (Baa1 stable) and Telenor ASA (A3 stable) in Denmark) that has been derailed due to remedy competition conditions imposed by the European Commission.

EC opens investigation into German vectoring plansl

The European Commission (EC) has opened an in-depth investigation into the Federal Network Agency's (FNA's) plan to allow Telekom Deutschland (TD) to upgrade its network with vectoring technology in areas close to its exchanges, which was approved last month. The EC says it has concerns about the potential impact of the proposal on the development of competition and on longer term incentives for investment in future-oriented networks. While recognizing that the FNA's proposal would lead to broadband speed gains in parts of Germany (of the six million households affected, roughly 1.4 million would receive download rates or above 50Mbps for the first time), the EC believes that the alternative access solutions for rivals offered by the German watchdog are not yet sufficient to ensure an appropriate safeguarding of competition. The investigation will assess whether solutions can be found which are better suited to protect competition and future investment, while still allowing for speed-enhancing network upgrades. The EC has three months to discuss the case with the FNA, in order to remove any elements giving rise to serious doubts as to compliance with EU law. The Commission may, at the end of the investigation period, either lift its reservations or issue an Article 7a Recommendation, which will require the FNA to amend or withdraw its draft measure.

Supreme Court nixes call drop compensation rules

India's Supreme Court has ruled that a directive introduced by the Telecom Regulatory Authority of India (TRAI) which obliged cellcos to compensate customers for dropped calls was 'unconstitutional and arbitrary'. The apex court sided with operators and struck down the directive, questioning the TRAI's process of making the decision, the Economic Times reports. As previously reported by CommsUpdate the regulations required providers to pay customers INR1 (USD0.015) for each dropped call to a maximum of INR3 per day. Industry bodies the Cellular Operators Association of India (COAI) and the Association of Unified Service Providers of India (AUSPI) challenged the rules, claiming that the TRAI does not have the authority to impose such requirements and warning that it could cost operators upwards of INR30 billion per month. The industry bodies also argued that there was no mechanism for operators to separate the reasons for call drops.

US watchdogs probe mobile security

The US authorities are to investigate the security of mobile devices, and in particular the way in which software updates are distributed. The Federal Communications Commission and the Federal Trade Commission are looking to "better understand, and ultimately to improve" practices. To this end, letters have been sent to operators asking about procedures for reviewing and releasing updates, and to eight device makers about how patches are issued to address vulnerabilities. "There have recently been a growing number of vulnerabilities associated with mobile operating systems that threaten the security and integrity of a user's device, including 'Stagefright' in the Android operating system, which may affect almost one billion Android devices globally", a statement said. Consumers, it warned, may be left unprotected for long periods of time – or perhaps indefinitely – by poor update processes. It has widely been detailed that Android vendors in particular have different approaches to security updates, reflecting a number of factors including the level of customization on top of stock Android. Operators also have their own requirements for device updates in terms of testing, which adds further complexity to the process. Data from Google shows that only 7.5 devices visiting its Play store run the latest version of the OS, with an additional 35.6 per cent running the previous release – meaning 56.9 per cent use a platform released before 2014. While obviously platform updates are not the same as security patches, it does show the diversity of platforms still in use, and the slowed uptake of newer – and hopefully more secure – versions. In comparison, Apple's tighter control of the iPhone and its iOS platform means this is generally perceived as being faster on the update. The questions sent to operators address issues such as "issues or hurdles" related to updates; whether devices they sell have any specific customisation or software that could need patching; whether operators know the security status of devices; and the potential security impact for networks. Also up for discussion are differing practices between platforms, and a number of specifics related to Stagefright. Letters sent give a deadline of 45 days for responses.

GSMA chief says mobile industry has privacy "obligation"

Mats Granryd, director general of the GSMA, opened the event by warning that mobile operators must keep the protection of subscriber privacy at the front of their thinking, with new challenges already on the horizon. Granryd told an audience that, in addition to privacy, operators have to secure subscriber data, act transparently, ensure private communications stay that way and assure financial transactions are carried out safely. Already, the GSMA has its Mobile Privacy Initiative in place which established universal guidelines to allay consumer concerns. Within the initiative, the GSMA published its Mobile Privacy Principles in 2011, as well as design guidelines for app developers a year later. And Granryd also pushed the association's efforts in the area of identity and authentication. The GSMA head said its Mobile Connect initiative – aiming to allow consumers to use mobile phone credentials to securely and safely access digital services such as e-commerce, banking, health, entertainment and e-government – has seen "fantastic" uptake. "In February, we announced there are more than two billion enabled users globally, with 34 mobile operators," he commented. "We're now focused on developing the Mobile Connect ecosystem, increasing the services linked up to Mobile Connect." But new areas of concern are emerging, said Granryd: "As billions of devices become connected via the Internet of Things, the possibility of potential vulnerabilities increases." "It is essential to consider end-to-end security of IoT services in the design process," he added. The GSMA has developed guidelines for IoT security, likely to be a key subject at this week's event. The initiative is backed by leading operators, vendors and infrastructure partners. The guidelines offer a common approach to security for IoT services, as well as practical advice on cyber security threats and data privacy. "There will be many new challenges on the horizon as we embrace the Internet of Things, big data, wearable technology, drones – whatever the next disruptive technology may be," concluded Granryd.

Oman, UAE discuss telecom coverage spillovers, interference in border areas

Top officials from telecom regulatory authorities of Oman and UAE met in Muscat over the weekend to discuss interference and coverage spillovers in border areas. The talks took place during the 17th coordination meeting wherein Dr. Hamed bin Salim al Rawahi, executive president of Oman's Telecommunications Regulatory Authority (TRA) received Hamad Obaid al Mansoori, Director General of UAE's TRA. "The purpose of the UAE delegation's visit to Oman was to discuss interference and coverage over-spilling into the borders of the two countries. It also aims to intensify collaboration on matters of mutual interest for both regulators," the TRA had said in a statement. The coordination meeting also discussed among other topics an agreement on a technical mechanism to operate 4G mobile network at the borders, which will reduce the overspill and interference. This meeting was held under the Telecommunications Bureau of the GCC Secretariat General.

FCC approves Charter takeover of TWC, Bright House

Charter Communications' long-running dual takeover of rival cablecos Time Warner Cable (TWC) and Bright House Networks has finally been approved, the Federal Communications Commission (FCC) has confirmed. In a brief media announcement issued on 6 May, the regulator confirmed that it has authorized — albeit with conditions — the application filed by Charter, TWC and Advance/Newhouse Partnership (the parent of Bright House) to transfer control of certain licenses and authorizations from TWC and Bright House to Charter. An order detailing the FCC's reasoning and the conditions, will be issued in the coming days, the watchdog noted. According to TeleGeography's GlobalComms Database, following the completion of both deals – which were agreed back in May 2015 – TWC shareholders are expected to own between 40% and 44% of 'New Charter', Advance/Newhouse is expected to own between 13% and 14% of the new company and Charter owner Liberty Broadband is expected to own between 19% and 20% of the enlarged entity.

The combination of Charter, TWC and Bright House will create the second largest broadband provider in the US, behind cable giant Comcast, serving more than 20 million broadband customers.

Turkcell negotiates acquisition of 100% IsNet shares

Turkcell, Turkey's leading cellco by subscribers, has issued a statement announcing it has authorized its management to negotiate the acquisition of 100% of the share capital of Isbank (Is Bankasi) subsidiary IsNet. TeleGeography's GlobalComms Database notes that IsNet was founded as an ISP in 1999, with the Isbank conglomerate providing 100% of the investment. The company added a Fixed Telephony Service (FTS) Operator license to its portfolio in 2004

Market Demand for Spectrum has Increased So Upcoming Auction of 850 MHz will Definitely be Fruitful: Ricardo Tavares

In an exclusive interview with PhoneWold LIVE (PW), Ricardo Tavares (RT) shed light on his ten year journey in Pakistan and the ups and downs he saw in Pakistan's ICT sector. Ricardo Tavares is a leading international consultant on ICT policy and regulation. From 2004 to 2010 Ricardo was Sr. VP at the GSM Association, the international trade association for mobile operators. He was a Sr. Director of International Operations at San Diego, California-based Wireless Facilities, Inc. from 1999 to 2003, and was General Manager of WFI's Brazil office in 2001/02, managing the roll out of 1,500 cell sites from radio planning to civil works to core network connectivity. TechPolis provides international consulting services to leading players in the mobile technologies sector and helps them to navigate policy and regulatory challenges by guiding government relations, building industry alliances, designing advocacy campaigns, and providing crisis management. TechPolis' experience is concentrated in five regions: Middle East & North Africa, South & Central Asia, Southeast Asia, and Latin America.

GSMA calls for India to reduce 700MHz reserve price

GSMA's chief regulatory officer, John Giusti, has urged India to lower the auction reserve price for the 700MHz spectrum band to meet the government's objective of increasing mobile broadband penetration. "The GSMA urges the Indian government to reconsider the auction reserve prices to better reflect local market conditions, allow competition in the market to determine fair prices… and increase mobile broadband access for all," he said in a statement. The telecoms regulator in late January set a base price for the band at an eye-watering $1.7 billion per megahertz. India's top four operators, however, have said since February they may avoid the 700MHz auction, given their stretched balance sheets and need to beef up their 4G networks with newcomer Reliance Jio soon to launch 4G nationwide. "The reserve price for this much-needed spectrum are unrealistic in relation to the economics of the mobile industry," Giusti argued. He said if the Telecom Commission maintains the current reserve price, there is the risk of a failed auction or, at a minimum, serious limitations on investment capability in next-generation networks. "If the spectrum goes unsold, it would be extremely damaging not only for the Indian mobile industry, but also for the country's economy overall." With the 700MHz band included across the country's 22 service areas, the government has estimated it could raise a staggering INR5.37 trillion ($80.5 billion) in the auction, scheduled for July. But the Economic Times reported yesterday that the high reserve price is deterring bidders — specifically Bharti Airtel, Vodafone India, Idea Cellular and Reliance Communications — and could limit the amount generated in the auction to INR600 billion – INR700 billion. Giusti noted that the total recommended reserve prices for the seven spectrum bands in the auction are almost double the cost of all spectrum investment to date in India. The amount equates to more

than 20 times the annual free cash flow of the entire mobile industry in India. "The government's decision to reduce spectrum usage charges from 5 per cent to 3 per cent is a step in the right direction, but it will not do enough to offset such high spectrum prices," he said.

Business Data Services: Feedback on the FCC Proposed Price Regs

Announcement of the FCC's proposal to place new price regulations on business data services is attracting both heavy criticism and high praise. The Commission released a statement saying that its data shows that competition in this market is uneven, and that existing rules have "failed to identify markets where competition is lacking, even as they have failed to identify competitive markets." The proposal drew fire from the National Cable & Telecommunications Association, which says that cable's entry into the market for business data services over the last few years has improved services and lowered prices for businesses. "It is disappointing that Chairman Wheeler is responding to this unquestionably positive development by asking the Commission to consider imposing onerous new rate regulation on these competitive services," the association states. "We are confident that this proceeding will expose the obvious harm to investment created by such an approach and that the Commission will reject the Chairman's proposal to abandon four decades of bipartisan pro-competitive policy." Tom Struble, policy counsel at TechFreedom says the FCC's actions cast a pall over the market, and points to economic data predicting it could result in a decrease in fiber investment. He adds that the new regulations could actually depress rollouts in the business data services market, and decrease the number of fiber and other high-capacity service options. INCOMPAS cheered the FCC's launch of a further rulemaking to address what it calls the lack of competition in the business data services market. "We are committed to working for technology-neutral policies that ensure providers do not abuse their market positions in the prices, terms and conditions for BDS services — services that are necessary for wireless backhaul and competitive services to business customers, schools, hospitals, libraries and government buildings," Chip Pickering, CEO of INCOMPAS, says. "This action today is a critical step forward in promoting next generation mobile broadband networks such as 5G." "The FCC is now poised to usher in a new competitive and sustainable business data services framework to the benefit of the entire broadband economy," BT says in another statement. "We thank the FCC for its action today and look forward to continuing our work together to ensure that competition governs this critical input to innovation."

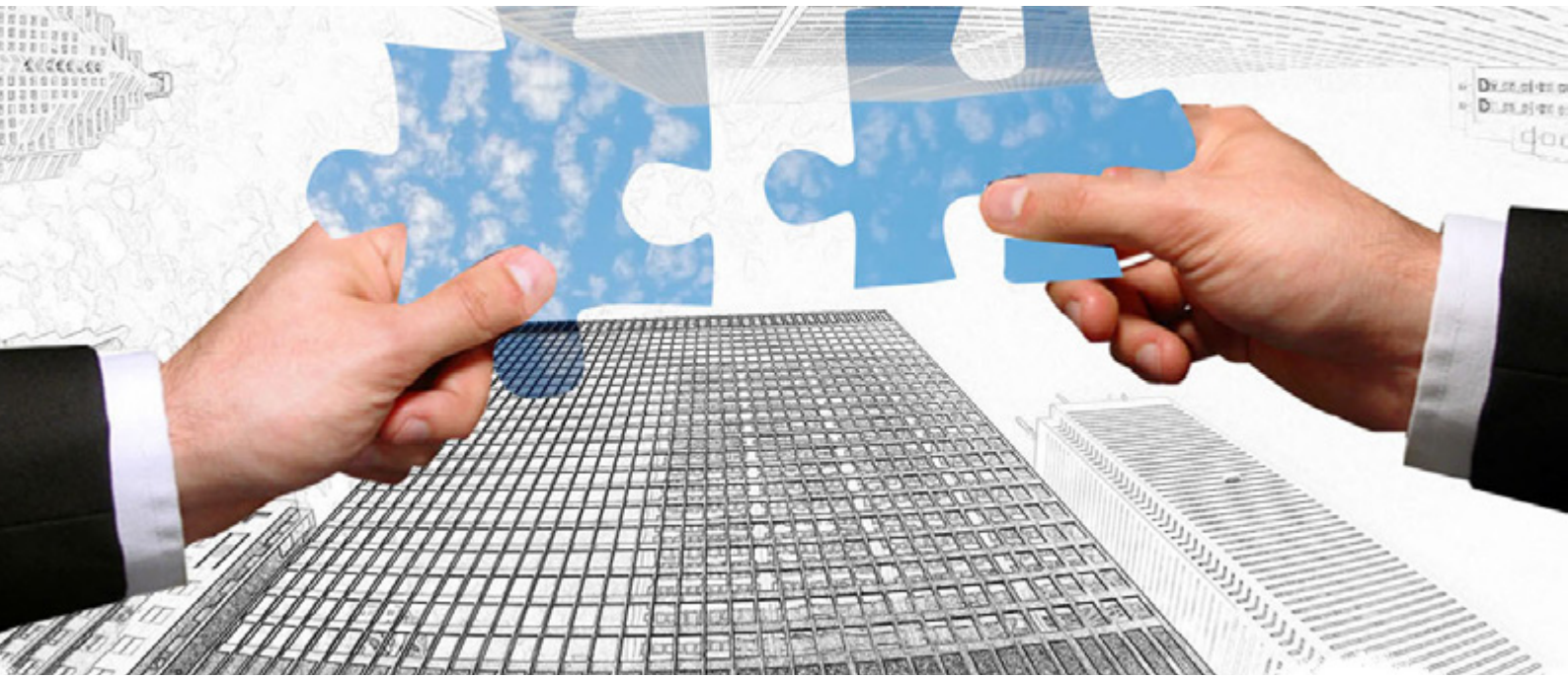
Government, Orange strike agreement to merge fixed, mobile assets in Cote d'Ivoire

The government of Cote d'Ivoire and the management team of Orange Group have reportedly signed a memorandum of understanding (MoU) relating to the long-planned merger of fixed line operator CI-Telecom and mobile unit Orange Cote d'Ivoire. The former is 48.5%-owned by the government and 51.0%-owned by Orange Group, with the remaining minor stake held by current and former employees, while the cellco is 85%-owned by Orange Group, with the remainder held by SIFCOM. According to news portal Jeune Afrique, the agreement was signed on 28 April by Bruno Mettling, CEO of Orange Middle East and Africa (OMEA), Abdourahmane Cisse, the Ivorian Minister of Budget, Minister of Economy Adama Kone, and Minister of Digital Economy Bruno Kone. Discussions with the state are expected to be concluded by the end of the year, with the merger expected to be formalized by June 2017. Speaking to the local media afterwards, Mr Kone suggested that the government will ultimately hold a 31% stake in the new entity, compared to Orange's 69% shareholding.

EC will object to Wind/3 Italia merger, report suggests

The proposed merger between CK Hutchison's 3 Italia unit and VimpelCom's Italian subsidiary Wind Telecomunicazioni will reportedly face objections from the European Commission's (EC's) competition watchdog. Bloomberg writes that the EC is preparing to send a statement of objections which catalogues antitrust concerns over the EUR21.8 billion (USD24.7 billion) deal. Unnamed sources cited by Bloomberg say the EC will issue its report in June, highlighting its fears that the proposed 50:50 venture could result in higher prices and less choice for Italian consumers, as well as less negotiating power for the country's MVNOs, with the market going from four to three players.

The competition authority is scheduled to release its final decision on the tie-up by 18 August. Neither Hutchison nor VimpelCom have hinted what, if any, concessions would be made should the EC object to the deal. The two companies have previously defended their proposed merger, however, issuing a joint statement last month to say: 'The combined business will have the scale, financial strength and a more efficient cost structure to offer Italian consumers and businesses a state-of-the-art network.' The two firms say they are cooperating with the EC's investigation.



Viable Areas of Investment and Stakeholder Partnership

In developed and emerging economies strategic coalitions between business, government and civil society are a growing trend. Such multi-stakeholder partnerships are necessary because it is increasingly clear that no one sector in society can convey the complexities of sustainable development alone.

Multi-stakeholder partnership (MSP) is a very broad term that describes groupings of civil society, the private sector, the public sector, the media and other stakeholders that come together for a common purpose. Here the partners have a shared understanding that will play different roles and different purposes, but they can follow combined goals through partnership and common actions to achieve such goals. These partnerships are voluntary, with participation driven by the apparent benefits they may see emerging from the process. Such partnerships are increasingly being used to challenge the policy processes. In a number of cases this is underpinned by collective research funding to support a particular position in the policy process and to raise general levels of awareness and knowledge about the issues under consideration.

One of the dangers of the current 'partnership' movement is that the idea is fast becoming an 'end in itself', rather than a 'means to an end'. The conclusions of the Digital Opportunities Initiative (DOI) suggest that since ICTs are in practice an 'enabler' of sustainable social and economic development, thus multi-stakeholder ICT partnerships (i.e. strategic compacts between different ICT players) are likewise an enabler and not an end in themselves. The DOI concluded further that the complexity of meeting the challenge of ICT as an enabler of sustainable development requires a holistic approach: the strategic combination of policies, infrastructure, technology, human capacity, enterprise and content. The logic is that the interaction of ICT with the goals of sustainable development is so complex, and the range of resources and competencies that need to be brought together to create complete solutions to specific challenges, so broad, that stakeholders across society (from government, business and civil society) need to be involved both in the design of these solutions and their implementation.

MSPs are about partnerships that are greater than the sum of its parts and about creating lasting and meaningful impact

at all levels of action. They are meant to promote a more holistic approach to development and better governance. The concept of MSP as an instrument for achieving development goals is sound, particularly when stakeholders with unique complementary strengths or core competencies add value to development efforts and pool their resources and assets in solving problems. But while many laud the virtues of MSPs, most are struggling to make them work. The central challenge seems to revolve around the nurturing of a working relationship based on trust, mutual respect, open communication, and understanding among stakeholders about each other's strengths and weaknesses. Stakeholders from each sector bring their own organizational mandates, interests, competencies and weaknesses to partnerships. Without open acknowledgement of these factors, and without processes in place to facilitate negotiations among stakeholders for optimal outcomes, effective MSPs will not emerge.

In a preparatory conference held in Bali in 2002 a set of principles for multi-stakeholder partnerships was drawn up as input to the World Summit on Sustainable Development. Designed for so-called 'Type II' partnerships, the principles directed that the partnerships should:

- help achieve the further implementation of the Millennium Development Goals, consistent, where applicable, with sustainable development strategies and poverty reduction strategies;
- be voluntary and self-organizing;
- be based on mutual respect and shared responsibility of the partners involved;
- have a multi-stakeholder approach, arranged among any combination of partners, including governments, regional groups, local authorities, nongovernmental actors, international institutions and private sector partners; and
- be international in their impact, beyond the national level.

The Bali principles were successful in launching more than 200 partnerships for sustainable development. However, over time, as researchers of multi-stakeholder partnerships around the globe have analyzed both good and poor practices, it is possible to identify ways in which the Bali Principles might be re-worked, in particular to align them with the task of formulating partnerships that involve the ICT sector.

The multi-stakeholder partnerships convened essentially for the strategic purpose of informing or setting the rules of the enabling environment for ICT (policy, strategy, regulatory regime etc.) are essentially 'design-orientated' partnerships, whilst those that are about improving access to ICTs through the use of ICT software, e.g. training or developmental applications (e-health, e-government, e-education, e-commerce) can be thought of as 'implementation-orientated' partnerships. Some partnerships, for example, those that seek to develop and deploy new forms of ICT hardware – technology or infrastructure – tend to combine design with implementation.

A series of principles for the formulation and evaluation of multi-stakeholder partnership principles were also discussed as:

Knowing when to apply a multi-sector ICT partnership approach is about recognizing the convergence of the following three features: those aspects of the sustainable development agenda to which ICT can act as an enabler; the persistent challenges to the deployment of ICT as an enabler of sustainable development, in particular, cases where the design of solutions by single parties in society or by contractual relationships have failed; those persistent ICT for development challenges that, because of their complexity, require the strategic alignment of resources and competencies from across business, government and civil society

Individual organizations will enter a partnership with an expectation of securing some type of gain over and above that which they could achieve working alone or within a conventional contract. For the private sector (ICT operators, manufacturers, contractors, various forms of service providers etc.) these drivers could include global reputation, market penetration, operational cost saving, risk management, access to finance or more visible compliance with internal or mandated standards for corporate social responsibility. For those public sector agencies involved in ICT regulation, the driver might be to ensure that change in the regulatory regime achieves the right balance between:
(i) Sufficient incentive to attract private capital, and
(ii) Taxes, tariffs and pricing policies, along with environmental and social safeguards, that satisfy the needs of customers and the interests of civil society groups.

For local government authorities, ICT-based partnerships might be seen as a way to achieve greater efficiency in the allocation of scarce resources, or the faster delivery of commitments to public service improvements contained in economic development plans, either in ICT access or in the areas of education or access to health care, employment and market opportunities or government services. The drivers for different types of civil society may, for some, be about shifting from an advocacy role to one of more direct influence, especially over government policy. Others may be driven by the desire to leverage new resources, and others still, as simply a faster way to deliver on the organization's strategic objectives for environmental protection, social inclusion or poverty reduction.

With reference to the above discussion, as well as interpreting the experience of the World Bank's Business Partners for Development program, two further principles of multi-stakeholder ICT partnerships can be deduced as follows:

Principle 1 – Before agreeing to enter into partnership, its projected value in satisfying the main drivers for participation should be objectively weighed against the available alternatives and risks.

Principle 2 – A multi-stakeholder ICT partnership will work best when it is in the self-interest of each party to pro-actively seek solutions that satisfy the interests of the other parties, i.e. when the partnership is mutually reinforcing.

Javaid Akhtar Malik
Regulatory Affairs
SAMENA Telecommunications Council

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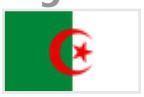
A SNAPSHOT OF REGULATORY ACTIVITIES IN SAMENA REGION

REGULATORY UPDATES

Algeria



President: Mr. Toufik Bessai
[Regulatory Authority for Post & Telecommunication (ARPT)]

The Authority of the Regulation of Post and Telecommunications (ARPT) has granted provisional licenses of 4G technology to the three mobile telephony operators in Algeria. These are the provisional licenses for the establishment and the exploitation of public networks of 4G telecommunications by Algerie Telecom Mobile (ATM, Mobilis), Optimum Telecom Algérie (OTA, Djezzy) and Watania Telecom Algerie (WTA, Ooredoo). The bids submitted by the three mobile operators on April 11, were studied by the ARPT Committee, which granted the temporary licenses. The three operators, whose managers were present at the ceremony of the announcement of the results, will be informed on 29 May of the provinces of their deployment from the first to the fourth year. Minister of Post and Information and Communication Technologies Imane-Houda Faraoun said in a speech read on her behalf by the ministry interim general secretary Saliha Sayeh that with the launch of 4G, Algeria enters "a quality phase of modernization of its infrastructures by the deployment of new technologies such as high speed internet." (May 23, 2016) aps.dz

The Minister of Post and Information and Communication Technology, Imane Houda Feraoun, has revealed the impending restructuring of state-owned domestic telecoms operator Algerie Telecom (AT) and the opening up of its capital to strategic investors, Al Huffington Post Maghreb reports. 'The restructuring of Algerie Telecom is inevitable in view of current developments worldwide', the minister was cited as saying, adding that 'after 15 years of existence, it has become imperative for Algeria Telecom executives to change the organizational structure of the company and review its business strategy and its working methods so as to be in tune with global technological and technical developments.' In regards to AT's listing on the local stock exchange, Mrs. Houda Feraoun said that an initial public offering (IPO) of the telco is a possibility, as it 'will boost its efficiency.' The plans for AT's privatization have been mooted for several years but have come to nothing. In October 2013 local media sources suggested that the Conseil des Participations de l'Etat (CPE) – the agency

managing the Algerian government's stake in state-owned business entities – was planning to sell the shares of ten nationalized companies, including AT, as part of a strategy to boost the local stock market. Both UK-based Vodafone Group and Orange Group of France have expressed interest in acquiring a stake in the operator's wireless arm Mobilis. (May 3, 2016) telegeography.com

Bahrain

Chairman: Dr. Mohammed Al Amer
[Telecommunication Regulatory Authority (TRA)]

Bahrain is set to launch its Fourth National Telecommunications Plan (NTP) after Prime Minister Prince Khalifa bin Salman Al Khalifa issued Edict No. 29/2016 on May 8, approving the move. The Fourth NTP sets out guidelines for the telecoms sector for the next three years, and targets the deployment of a high speed fiber-optic network across the country. Succeeding the country's Third NTP (issued in 2012), the new NTP is based on eight themes, including: developing the infrastructure of high-speed broadband services, consolidating sustainable competition in the field of mobile telecommunications and developing networks and systems to deliver the best services, managing the frequency spectrum effectively and developing wireless infrastructure to ensure optimal use of the spectrum. Further, the plan aims to improve network security, increase international connectivity, enhance access to internet applications and services, and develop Bahrain's status as a regional ICT hub. The Ministry of Transportation and Telecommunications (MTT) will head the implementation of the Fourth NTP.
(May 12, 2016) Bahrain News Agency

Bangladesh

Chairman: Mr. Sahjahan Mahmud
[Bangladesh Telecommunication Regulatory Commission (BTRC)]

Bangladesh ended March with 62 million active internet subscribers, up from 61.28 million internet subscribers at the end of March. The country's mobile internet base reached 58.66 million in April, up from 58.04 million in the previous month, according to figures from the Bangladesh Telecommunication Regulatory Commission (BTRC). The fixed-line internet user base also increased to 3.21 million in April, from 3.11 million in March, while the number of WiMAX subscribers declined to 124,000 in April, from 131,000 in the previous month.
(May 23, 2016) telecompaper.com

The High Court of Bangladesh granted the government 22 more days to reach a decision on the planned merger of two private sector mobile operators, Robi Axiata and Airtel. It is the fifth time the High Court has accepted the government's time extension plea over the issue. Sayed Mahsib Hossain, representing the Bangladesh Telecommunication Regulatory Commission (BTRC), said the court had heard all parties including the Ministry of Posts and Telecommunications on Sunday, adding that the matter will be heard again on June 6, 2016. On January 29, 2016 Malaysian-backed Robi and Indian-owned Airtel signed an agreement to merge in Bangladesh under the name of Robi, which would create the second largest cellco in the country.
(May 17, 2016) The Dhaka Tribune

The government will prepare guidelines for tower business in telecom sector keeping in mind the cost efficiency of operators that build and maintain towers separately and that will ultimately benefit end users. State Minister for Posts and Telecommunications Tarana Halim said this at a seminar on "The Prospect of Tower Business in Bangladesh" organized by a Telecom Reporters Network, Bangladesh (TRNB) at Westin Hotel in the capital. "Uncontrolled telecom towers harm environment.....We will consider level playing field to allow new player for tower business, but up gradation of network would also be considered during making policy," Tarana said in her address as the chief guest. TIM Nurul Kabir, secretary general, Association of Mobile Telecom Operator Association of Bangladesh (AMTOB), Abu Saeed Khan, senior fellow policy of LIRNEAsia, Taimur Rahman, senior director of GR and Regulation of Banglalink, and Moynul Haque Siddiqui, managing director of Fiber@home, attended the seminar. Telecom Reporters' Network Bangladesh (TRNB) president Rased Mehdi moderated the seminar while its general secretary Shamim Ahmed presented the keynote paper. The state minister said the upcoming policy on tower business would ensure foreign direct investment. "We would create competitiveness in tower business...Monopoly business would be discouraged through ensuring level playing field in the sector." She said the government would also consider ensuring lower tower through sharing cost so that consumers can get benefit of it. At the seminar, Bangladesh Telecommunication Regulatory Commission Chairman Dr. Shahjahan Mahmood said BTRC encourage investment in telecom sector. He said the commission would provide tower sharing licenses in an open tender. "A total of 36,000 mobile towers have so far been installed whereas it would require only 24,000 towers. This is due to lack of tower sharing, but the quality of service is very poor," Shahjahan said. Tower would be increased after introduction of 4G, he added. The BTRC chair expressed his dissatisfaction over installation of five towers on the roof of BIRDEM Hospital building in Shahbag due to lack of sharing attitude. Shahjahan said they would form a new company to run tower sharing. Of the company, BTRC would allow 51% investment from local sources and the rest from foreign direct investment. Posts and Telecommunications additional sectary Shawkat Mostafa said the government would formulate tower sharing license guidelines with the consent of shareholders. According to Mahmud Hossain, chief corporate affairs officer of Grameenphone, qualified firms should be allowed to get license for tower business. The existing mobile phone operators' towers will also be considered in the guidelines, he said. Shahed Alam, executive vice-president of Robi, echoed the same as Mahmud. He said experienced companies should be taken into consideration for the tower business, he opined. BTRC's System and Services Division Director General Amdad-ul-Bari said mobile operators share only 18% tower among each other. (May 2, 2016) dhakatribune.com

Egypt

Acting Executive President: Eng. Mustafa Abdul Wahid
[National Telecommunication Regulatory Authority (NTRA)]

Egypt's Minister of Communication and Information Technology, Yasser El-Kady reviewed the timeframe to validate 4G frequencies licenses. The country's National Telecommunications Regulatory Authority (NTRA) will put the final touches to the licenses, he added. The minister further told reporters on the sidelines of the Techne Summit in Alexandria that the NTRA would finalize the legal drafting of licenses in two weeks with the help of a legal consulting office. He further explained that mobile operators would examine the feasibility of taking those licenses so as to release the new frequencies into the market. The Egyptian Cabinet has previously approved ensuring licenses for new 4G frequencies in accordance with the NTRA's standards. The NTRA will be responsible for the preparation of licenses including the financial and technical commitments in compliance with rules and regulations of Communications Regulation Act No. 10/2003. This comes within the framework of telecommunication sector development plan that is expected to put Egypt on top of countries providing 4G telecommunications services. The decision aims to increase government resources and improve services provided to citizens. The minister asserted that releasing more frequencies for 4G and 3G can generate substantial economic returns as well as ease the burden on second and third Generation. This will help offer better quality for voice services and create more job opportunities after building new networks. The National Telecommunications Regulatory Authority (NTRA) will announce Sunday all the details related to this matter, the minister said. The four licenses will be issued for all mobile companies operating in Egypt, the cost of each will be determined according to every company's needs of frequencies. (May 10, 2016) zawya.com

The Egyptian government is planning to award 4G mobile licenses within two months, with the National Egypt's Minister of Communication and Information Technology Yasser El-Kady. National Telecommunications Regulatory Authority (NTRA) aiming to finalize the legal drafting of the concessions in two weeks, according to Egypt's Minister of Communication and Information Technology Yasser El-Kady. Zawya reports that a total of four licenses will be issued. Meanwhile, an unnamed NTRA official disclosed that Telecom Egypt would start offering mobile services using rivals' networks if it secures one of the 4G licenses. Three companies currently offer mobile services in Egypt – Vodafone, Orange and Etisalat Misr (Nile Telecom) – while monopoly fixed line provider Telecom Egypt (TE) is also looking to enter the wireless sector. (May 10, 2016) africatelecomit.com

Iran

Deputy Minister and President: Dr. Ali Asghar Amidian
[Communication Regulatory Authority (CRA)]

Revised landline telephone tariffs will be announced in a month, said the Minister of Communications and Information Technology, Mahmoud Vaezi. Several factors have been taken into account before announcing this year's new rates. Vaezi hinted that calling rates will increase, ILNA reported. "Regulating telephone tariffs will benefit both the telecoms sector and the people. An official statement will not be released until negotiations on this issue have been finalized," he said. The minister weighed in on investment in the industry and said most new agreements have been made with private organizations, without specifying whether these are local or foreign. "Several foreign firms have announced readiness for investing in Iran's fiber optics projects and new agreements will be finalized in the coming months," he said."Foreign mobile phone operators have also approached us to make new investments in this area." Vaezi said a deadline has not been set by which Internet tariffs will reduce, though a committee has come together and is investigating the issue. In an earlier interview, the minister had said Internet tariffs are likely to drop in the current Iranian year (started March 20). He lauded advancements in this area and noted that the current state of Internet connectivity in Iran is incomparable to the initial state it had when the administration of President Hassan Rouhani took office in August 2013. "Currently, there are 20 and 10 million users of 3G and broadband Internet respectively," he said. Referring to the Mobile Number Portability project, he said the project has progressed according to plan and "we are ready for launch". Vaezi said all three mobile operators, namely Mobile Telecommunications Company of Iran (MCI or Hamrah-e-Aval), MTN Irancell and RighTel, are ready to launch MNP services that have been successfully tested. (May 17, 2016) financialtribune.com

Iran's Deputy ICT Minister has said that the government is looking to boost internet connections in the country to a minimum 20Mbps within the next five years. Barat Ghanbari says that the scheme will be backed by an investment of USD15 billion, half of which will go to the state-owned Telecommunication Company of Iran (TCI). Ghanbari said that internet services in rural areas will be expanded via the deployment of 4G LTE mobile technology. For many years most residential internet connections in Iran were limited to a maximum speed of 128kbps, with the cap only lifted in September 2014. Meanwhile, TCI is to forge stronger ties with Kazakhtelecom, with the two telcos signing a memorandum of understanding (MoU) covering the development of new services and the opening of new international traffic routes between the Middle East, Asia and Europe. The two countries intend to link their respective networks either via a direct trans-Caspian cable or overland through a neighboring country.
(May 17, 2016) Mehr News Agency

Jordan

Chairman of the Board of Commissioners/ CEO: Eng. Ghazi Al-Jobor
[Telecommunication Regulatory Commission (TRC)]

The Telecommunications Regulatory Commission (TRC) said it is looking into news circulating on several media outlets that local telcos have plans for new procedures that require users to subscribe to use Voice over Internet Protocol (VoIP) services such as Skype and Viber. "We

are currently coordinating and discussing the issue with the concerned companies in line with the legal guidelines governing telecom services... The TRC will announce these measures as soon as possible," the commission said in a statement in response to questions by The Jordan Times. An expert in the telecom sector said several ads were recently published by telecom companies stating that there is a need for subscriptions and documentations as of end of May and early June for users to be able to use VoIP services. VoIP enables people to use the Internet as the transmission medium for voice calls. It is used in applications such as Viber, Skype and WhatsApp. "Telecom companies are generally in favor of imposing charges on the use of these services as they negatively affect their revenues, with many users making international calls instead of using traditional voice calls," the expert, who asked not to be named, told The Jordan Times. "There are many ways and apps that can enable users to bypass any block on these services. This is not realistic. This is a global controversial issue. In the Gulf, some countries blocked such services and others imposed some fees, while in Europe for example these services are not blocked or charged," he said. "In Mexico for example, a decision was taken to impose charges on the use of these apps, but after masses took to the streets in protest, it was cancelled the next day."The expert added that the rise in Smartphone ownership and Internet penetration in Jordan increased the usage of these apps. By the end of 2015, there were 13.7 million mobile subscriptions in the Kingdom, in addition to 7.9 million Internet users, according to the TRC. (May 6, 2016) zawya.com

Nepal

Chairman: Mr. Digambar Jha
[Nepal Telecommunication Authority (NTA)]

Nepal Telecom (NT), the state-owned Nepalese telecommunication company, has completed laying optical fiber to Rasuwagadi area at the Nepal-China border from the capital city Kathmandu, with an eye to boosting Nepal-China connectivity. "We completed laying optical fiber to Nepal-China border point Rasuwagadi from Kathmandu via Galchhi of Dhading district and Dhunche of Rasuwa district three days ago. This has paved the way for interconnecting service of the NT with the China Telecom," NT spokesperson Pratibha Vaidya told Xinhua news agency. All-Dielectric Self-Supporting (ADSS) optical fiber was laid from Kathmandu to Rasuwagadi border point, according to NT officials. "We have already started installation of equipment for inter-connectivity with China and trial for service," she said. The NT has planned to finish trial for direct traffic exchange among Nepal, China and India within this month. "The completion of all the procedures about connectivity will have significant improvement in data and voice services currently being offered by the NT," she added. Once the Nepal Telecom gets connected with the China Telecom through optical fiber, it will be directly linked to Hong Kong Data Centre which is one of the two biggest global data centers in Asia, the NT spokesperson said. "Nepal can now establish global connectivity through Hong Kong via China, or Singapore via India. Service will become cheaper and faster from June after connecting with both the hubs in Hong Kong and Singapore. Internet sharing can also be done along with that," another official at the NT, Dilliram Adhikari, told local media. Nepal and China had agreed to enhance connectivity during Prime Minister KP Sharma Oli's official visit to China from March 20 to 27.
(May 14, 2016) economictimes.indiatimes.com

Ncell, the largest private telecom company in Nepal, today transferred Rs 9.97 billion to the state coffers, as per the instructions issued by the government to pay applicable capital gains tax on Ncell buyout deal. The amount deposited, as per Ncell, is 15 per cent of the gains made by TeliaSonera while selling Ncell to Malaysian telecom giant, Axiata. "Yes, Ncell has deposited the amount," a senior official of the Large Taxpayers' Office told THT on condition of anonymity. "The amount was extended based on tax liabilities estimated by Ncell. We'll now check whether the assessment is correct and make comments." Earlier, the LTO had directed Ncell to deposit 15 per cent of the withholding tax, or the tax deductible at source for capital gains, by today. Another 10 per cent of the gains made from the transaction must be deposited by TeliaSonera. Although the tax burden on buyout deals does not rest on buyer's shoulders, Ncell had decided to bear the responsibility to quash rumors that attempts were being made to evade taxes to the tune of tens of billions of rupees. "Ncell is one of the largest taxpayers in Nepal, and has consistently complied with the laws of the country. It has also exercised the highest standards of governance and compliance pertaining to the fulfillment of tax obligations," Ncell said in a statement. Yet Ncell is still reiterating that the capital gains tax should be paid by TeliaSonera, which sold its stake in Ncell and generated profit. Today, Ncell Managing Director Simon Perkins expressed the same view while talking to journalists. The controversy over capital gains tax in Ncell deal surfaced in December when Axiata Group Berhad, through its wholly-owned subsidiary, Axiata Investments (UK) Limited, entered into a 'conditional sale and purchase agreement' with TeliaSonera UTA Holdings BV and SEA Telecom Investments BV to acquire 80 per cent stake in Ncell for US$1.365 billion. To ascertain whether the deal was subject to capital gains tax, Axiata then sought advance tax ruling from the Inland Revenue Department. "The reason why we asked for the ruling was to avoid the situation that we are facing now because tax laws could be interpreted in many ways. However, many government officials, including very senior ones, told Axiata then that no tax was payable. We still wanted certainty (and asked for something) in writing. But government officials decided not to give that. However, verbally, they continued to say no tax is payable," Perkins said, adding, "So, when the letter arrived from the LTO (demanding submission of estimate for capital gains) a day after we closed the transaction, it was a major surprise for everybody." (May 10, 2016) thehimalayantimes.com

Oman

Executive President: Dr. Hamed Al-Rawahi
[Telecommunication Regulatory Authority (TRA)]

The Telecommunications Regulatory Authority (TRA) took part in a workshop organized by the Public Authority for SME Development (Riyada) recently. Organized in collaboration with Microsoft Oman, the workshop was held to familiarize SMEs and entrepreneurs with technological innovations and equipping them with the necessary tools to increase their productivity and efficiency, stated a press release. A number of contracts and purchases were discussed during the workshop by telecom sector partners such as Omantel, Ooredoo and Oman Broadband Company. The event is part of a series of partnership opportunities designed to help award around ten per cent of contracts and purchases by large enterprises in Oman. Omar al Qatabi, executive manager of administrative and financial affairs, TRA said, "This initiative is in pursuance of the directives of His Majesty Sultan Qaboos bin Said to support SMEs." In this context, TRA invited telecom sector partners including various companies and establishments to adopt and apply this initiative in four phases. The first phase will be to identify the projects and services these SMEs will be capable of providing under competition. Following this, TRA will invite these enterprises to register the services through a form that would be distributed to all telecom sector partners. In the third phase these enterprises will undergo training to upgrade the level of services they intend to provide. The fourth phase will assess the outcomes of the initiative and draw up future goals.
(May 24, 2016) muscatdaily.com

Oman was targeted with more than 5 million cyber attacks in 2015, according to the Annual Report 2015 by the Information Technology Authority (ITA), which was published last week. The report said ITA's Information Security Division had prevented more than 4.8 million attacks against government networks and more than 398,000 attacks against government portals in Oman. Oman needs joint efforts to protect itself against these cyber attacks, as the country's private and government sectors are increasingly focusing on internet technologies to serve their customers, said attendees at the IT Security Roadshow held in Muscat on Thursday. The event was organized by International Data Corporation (IDC) in association with ITA , and was aimed at creating awareness on cyber security in both the government and private sectors. Dr. Badr Al Mandhari, director general of the Information Security Centre at ITA, told the Times of Oman (TOO) that everyone in Oman is under threat. "Oman has been targeted many times by cyber attacks, both from inside and outside, both government networks and individuals. It is not only the government that is being targeted, everyone is being targeted," he said. Dr. Salim Al Ruzaiqi, CEO of ITA , said Omanis have become dependent on Information Communication Technology (ICT), as has the government in its dealings with citizens, therefore, cyber security has become a top priority. "ICT has become our lifestyle, but also a threat. If we don't put cyber security at the top of our list, the attackers and hackers will take control. They could shut down governments' infrastructure or even our homes, our cars, which are increasingly connected. Without collaboration among all of us, we'll be the weakest link in the chain," he said. Al Mandhari also referred to the recent cyber attacks targeting banks in the Gulf Cooperation Council, such as in the United Arab Emirates, Qatar and Oman. "It's a serious concern and we have to work very hard to address cyber security in the country and all efforts must be joint. "It's not only ITA which is responsible, but it's everyone's responsibility. Al Mandhari also pointed to the anti-cybercrime law, which has been developed by ITA in association with the Ministry of Legal Affairs. "We need to work with other government and non-government entities to understand what are the technical requirements and standards to counter cybercrime," he said. Kalle Bjorn, Director of Systems Engineering Middle East at Fortinet, told TOO that collaboration within the private sector, even between competitors, is needed to protect Oman against cyber attacks. "There's a lot of security spending in Oman, but the problem is that you can never be a 100 per cent secure," he said. Bjorn said more advanced protection than for example firewalls is needed and even competitors in the market have to integrate their cyber security strategies. (May 22, 2016) zawya.com

Oman has won three awards for its eGovernment efforts at the ongoing World Summit on Information Society 2016 (WSIS) in Geneva. The summit, organized by the International Telecommunication Union, began on May 2. The Ministry of Commerce and Industry's (MoCI) 'Invest Easy' project won the Champion Award in the E-business category while Information Technology Authority's (ITA) Digital Certification 'PKI' project won the Champion Award in the Building Confidence and Security category. The Omani delegation is being led by Abdullah al Rahbi, Oman's Permanent Representative to the UN in Geneva, Dr. Salim Sultan al Ruzaiqi, CEO of ITA and officials from ITA. 'Invest Easy' has also been honored as one of the best projects in the world that provides eServices through a one-stop shop as part of the United Nations Conference on Trade and Development (UNCTAD). Rahbi and Dr. Ruzaiqi received the certificate of recognition from UNCTAD at the US Embassy in Geneva. Dr. Ruzaiqi said, "We are delighted with this achievement in which the sultanate has been recognized for the fifth time in a row at WSIS since the beginning of our involvement in 2012. We congratulate the people who worked on these projects and we praise the efforts of MoCI's 'Invest Easy' project which proved that it's one of the best eGovernment projects in the sultanate." He added, "We are also proud of the success of the Digital Certification project in building confidence and security in the use of ICT. It reflects the great efforts made by ITA to provide the right environment for the development of various sectors and areas and to achieve sustainable development to facilitate access to electronic services." (May 5, 2016) muscatdaily.com

Telecommunications Regulatory Authority (TRA) has issued an Access and Interconnection Regulation and an Accounting Separation Regulation after a detailed consultation process with all stakeholders. The TRA conducted its first market review and designated Omantel and Ooredoo as dominant licensees in retail and wholesale markets. The decisions set out the

regulatory remedies that the dominant licensees must adhere to in order to safeguard fair competition and prevent abuse of dominance in the relevant markets. The accounting separation requirement was imposed on Omantel for its fixed business only. The objective of the accounting separation obligation is to ensure that dominant licensees in Oman treat other licensees in a fair and non-discriminatory manner and that TRA obtains, in the right format and at the right level of detail, the accounting information of licensees to carry out its duties in safeguarding the competitive environment against potential abuses of dominance. Further improvements have also been introduced in the procedures for getting more transparent reporting of separated accounts. The regulation requires separate accounts for each relevant market in which a licensee has been declared dominant and for each regulated service in that market. The Access and Interconnection (A&I) Regulation sets forth the rights and obligations of the dominant and non-dominant licensees in a comprehensive manner and establishes rules and procedures pertaining to the performance of such obligations. (May 3, 2016) world.einnews.com

Telecommunications Regulatory Authority (TRA) has amended the Class I license of Awasr, which launched commercial fibre-based broadband services in Muscat last month. The Times of Oman writes that the firm is now also permitted to offer fixed telephony and international telecoms services. Awasr's fibre-optic broadband services are currently available in the Muscat areas of Al Khoud, Al Mawaleh, Al Hail, Maabilah and Shatti Al Qurum, but the network will expand to new locations in the northern region, including Al Batinah North, Al Batinah South, Al Dhahirah and Al Buraimi governorates, as well as to the southern region, including the governorates of Al Dakhiliya, Al Sharqiyah North, Al Sharqiyah South, Dhofar and Al Wusta. For residential customers, downstream connection speeds of 20Mbps, 50Mbps and 150Mbps are on offer. 'We will deliver top-notch services at highly competitive and affordable prices to everyone, especially since affordability is one of Awasr's core principles aiming to achieve sustainable development in the Sultanate,' commented Issam Al Ismaili, head of marketing at Awasr.' Awasr was awarded a 25-year Class I concession to establish and operate public telecoms network in Muscat governorate in November 2012. (April 28, 2016) telegeography.com

Kratos Defense & Security Solutions, Inc. (Nasdaq:KTOS), a leading National Security Solutions provider, announced that its wholly owned subsidiary, Kratos ISE, has successfully completed the Critical Design Review (CDR) for the Advanced Space Radio Monitoring System (ASRMS). The Regulatory Authority (TRA) of the Sultanate of Oman led the review with support from Kratos ISE personnel. The successful completion of the CDR is significant as it demonstrates that the maturity of the design is appropriate to proceed with full-scale fabrication, assembly, integration and testing. The GeoMon system being supplied to the TRA will include a new building and several earth stations covering L/C/KU/X/Ka frequency bands, a mobile vehicle providing analysis capabilities for both earth-to-space and space-to-earth signals and an airborne spectrum analyzing solution. "The Kratos solution has been selected because of Kratos' extensive experience in the arena of space radio monitoring systems," said Yousuf Al-Balushi, Vice President for Spectrum Management Affairs for TRA. "The SRMS will enable us to better manage the satellite spectrum used in the Sultanate and provide for improved cooperation with other telecommunications regulatory agencies." "We are extremely pleased with the results of the CDR," said Bruno Dupas, President of Kratos ISE. "Satellite spectrum is a national security asset that can be subject to unauthorized usage, interference and other threats. The GeoMon solution will allow TRA to monitor and geolocate satellite radio frequency transmissions with operations automated for LEO and GEO satellites in all bands." Kratos ISE offers turnkey ground segment solutions encompassing C2, RF/IF equipment, satellite and terrestrial communications signal monitoring systems, equipment and network management and payload management solutions. For 30 years, Kratos has been the leading provider of satellite control systems, supporting hundreds of commercial, government and defense missions on five continents.
(April 26, 2016) world.einnews.com

Pakistan

Chairman: Dr. Syed Ismail Shah
[Pakistan Telecommunication Authority (PTA)]

The Pakistan Telecommunication Authority (PTA) gave its approval to Mobilink's planned acquisition of rival Warid Telecom, subject to certain conditions. Having assessed the impact of the merger on Pakistan's mobile market, looking at pricing of services, spectrum allocations and licensing, amongst other things, the PTA said it approved the companies' request to merge. However, the onus is on the merged entity to ensure the move brings benefits to consumers. "The merged entity shall ensure [it plays an] active role in enhancing competition other than [on] price, such as innovation, better quality of service, wider network coverage and enhanced speeds," the PTA said. Other more concrete conditions include requiring the merged outfit to "reasonable readjust/rearrange spectrum assignments as and when required by the PTA," as well as restrictions on the disposal of cell sites. With regard to the latter, the PTA insists that should it elect to close down redundant base station sites, Mobilink/Warid must give first refusal to any other company using the site who might wish to purchase it. It also states that the merged entity should seek to reuse any decommissioned base stations to extend services to remote areas. The regulator is also keen to ensure that the merged entity's tariff plans are not "in any way anticompetitive, unfair or burdensome." The firm will be required to gain PTA approval for its tariffs. Without commenting on the specific conditions, Mobilink issued a statement welcoming the PTA's decision, describing it as "yet another milestone in the regulatory process." The deal won the approval of the Competition Commission of Pakistan (CCP) two months ago, but the deal still remains subject to further regulatory approvals and the usual closing conditions, Mobilink said. "I am confident that the combination of the two businesses will benefit customers through a best-in-class mobile and high-speed network, and contribute to the overall

development of the telecommunications sector in Pakistan as an integral part of the economy," added Mobilink CEO Jeffrey Hedberg. Mobilink agreed to acquire Warid Telecom in its entirety in November last year in a deal of undisclosed value that will leave Warid's current owner, the Dhabi Group, with a 15% stake in Mobilink. Together the two operators had 49.6 million customers at the end of April, according to PTA statistics, giving them a 37.4% share of the market. Mobilink is already Pakistan's market leader by subscribers with just over 29%, but number two operator Telenor is hot on its heels with about 1 million fewer customers.
(May 24, 2016) totaltele.com

The absence of several major telecom operators from a preliminary meeting regarding next month's spectrum auction has prompted concerns that many of the incumbents will sit out of the competition. The media cites a senior Pakistan Telecommunication Authority (PTA) official as saying that only Mobilink, Telenor, WorldCall and Multi Net took part in the meeting, suggesting that China Mobile Pakistan (CMPak, which operates under the Zong brand) and Ufone will not take part in the auction, which features a single 2×10MHz block of 850MHz spectrum with a base price of US$395 million. Operators have until May 29 to submit applications to take part in the tender, but the source noted that the PTA has yet to receive an application from any of the nation's cellcos. Although Mobilink and Telenor – the largest and second largest mobile providers by subscribers respectively – attended the meeting, Mobilink is not expected to make an offer, as its planned acquisition of Warid will give it a toehold in the 4G market, whilst Telenor has yet to be given the green light by its Norwegian parent to enter the competition. (May 24, 2016) Pro Pakistani

The Pakistan Telecommunication Authority (PTA) has released 'Regulations for Technical Implementation of Mobile Banking'. The new regulations came into force on May 6. The PTA says these regulations apply to telecom operators and third-party service providers to offer technical services for mobile banking through service level agreements with authorized financial institutions by means of any of the mobile banking models prescribed in these regulations. Under the new regulations, all telecom operators that have a valid license can provide technical services to financial institutions for provision of m-banking services, without obtaining a separate license for this purpose from PTA under the 'one-to-one model'. Third-party service providers that have a license from PTA and authorized for providing technical services for m-banking by SBP will be authorized to provide technical services to AFIs and telecom operators for offering m-banking services under the 'any-to-any model'. The main objective of third-party service providers should be to enable interoperability among financial institutions and telecom operators.
(May 17, 2016) telecompaper.com

Finance Minister, Senator Muhammad Ishaq Dar announced that auction of Next Generation Mobile Services (NGMS) spectrum (3G) would be held on June 20. He urged the investors to take benefit of this opportunity for their better interests as the spectrum auction approaches. He made this statement while addressing a function to commemorate the "World Telecommunication and Information Society Day 2016". The minister said that all the economic indicators have been performing well. Mr. Dar said that 10 thousands MW electricity would be added in the system by 2018 which would help in reducing the power shortage for the industrial sector. "Pakistan is set to take off and it's now just matter of time," he said adding that credible world institutions have termed Pakistan second choicest place for investment and predicted the country to be the 18th biggest economy of the world by 2050. However, a lot more still needs to be done; he said adding that with efforts the dream of becoming 18th biggest economy could be materialized by even 2030. He said that Business Confidence Index for Pakistan has changed from minus-34 to + 36. By taking steps to ensure intellectual property rights, the confidence of investors in Pakistan has also gone up. Minister for Information Technology and Telecom, Anusha Rehman said that IT sector has potential to contribute 1.5 percent in the GDP. She said that broadband penetration would touch 38 percent by 2018 which currently stands at 18%, higher than India and Bangladesh. She said that Rs 14 billion projects were in place to promote IT sector while the government through Telecom Policy 2015 and Cyber Crime Bill has addressed most of the issues confronted by the sector. The Minister said that despite challenges, grey traffic was curbed. Anusha Rahman said introduction of mobile broadband has contributed a lot in connecting people and increased internet penetration in the country from mere 3 percent to 18 percent in a short period. Availability of these technologies have resulted in speedy proliferation of broadband access both in urban and rural communities with a record achievement of more than 30 million subscribers in less than 2 years. She said that the previous spectrum auction fetched $ 1.2 billion for the national exchequer. In addition, around $1.3 billion worth of investments are being made in rolling out of 3G/4G networks and infrastructure. She said IT exports and services have increased by 41 per cent since 2013 by just reorganizing the processes. Pakistan is now at number four in the world when it comes to freelancing. This achievement is very encouraging which remained unknown to most in the public domain. She said prospective young and energetic IT professionals would soon be under umbrella of National Incubation Centre of the Ministry. These startups with potential to become IT giants will be given full facilitation including premises, mentorship and opportunities to reach out to local and international markets. The centre will be managed by a private partner. Every year 40 start-ups will be hosted in the centre with each startup comprising of 5-10 member team. The Minister said ICTs for young girls system has been launched with joint effort of Pakistan Baitul Maal (PBM), Universal Service Fund (USF) and Microsoft to help prepare many young girls from underestimated area of society, with a goal that they can get suitable occupations. Chairman PTA said for the consumers, availability of high speed mobile broadband services in both urban and rural areas is encouraging a more connected community and promoting e-commerce related activities. He said next generation mobile services are considered an enabler towards GDP growth and help introduce more innovative e-services. Country Head of Microsoft, Nadeem Malik expressed

commitment of his organization in promoting ICT and hoped this particular initiative would help materialize government's vision to make Pakistan a digital country. Head of Mobilink said that stability and security have been established in Pakistan. (May 17, 2016) propakistani.pk

Pakistan's telecom regulator will auction off spectrum in the 850 MHz band in mid-June, it announced earlier this week. The Pakistan Telecommunication Authority (PTA) will sell off 10 MHz of frequencies in the 850 MHz band on 13 June, it revealed. The spectrum in question was left unsold at a 2014 auction. It carries a reserve price of US$395 million (€349 million). The PTA's timeline for the process gives would-be participants until 1 June to submit applications and pay a deposit equivalent to 15% of the reserve price; successful applicants will be notified on 6 June. The regulator did not say when it will publish the results of the auction. Pakistan still hopes to attract a new market entrant via the auction – the 850-MHz spectrum in question was initially reserved for that purpose – but the sale will also be open to the country's existing mobile operators. (May 13, 2016) totaltele.com
Enough has been said negative and discouraging about the ICT growth of Pakistan but the fact remains that Pakistan leads the race in Mobile Broadband in the region. It is time to appreciate some of the worth praising steps taken by the Government ICT Managers i.e. MoITT and PTA that has helped the country to improve its position in the region just in the last couple of years. The GSMA Intelligence stats indicate that the rate of Mobile Broadband penetration of Pakistan has witnessed phenomenal growth specially if compared to other regional countries like Bangladesh, India and Indonesia. Let's have look at the graphs for the past two years i.e. 2014 and 2015 that illustrates the enhanced growth of Pakistan's mobile broadband penetration: Pakistan leads the race when compared to its regional peers such as India and Bangladesh hands down and this just happened in the past two years. The NGSMA auction in 2014 and the resultant growth has seen Pakistan leading the race for MBB penetration of 19% and still on the increase showing 185% YoY growth. Gone are the days when mobile internet was rare facility and there was only one person using it in a home. The growing Smartphone penetration, availability of affordable Smartphones and above all access to 3G/4G has enable Pakistan to boost its standing across the region. (May 6, 2016) phoneworld.com.pk

A pessimistic Pakistan Telecommunication Authority (PTA) has dropped the idea of hiring consultants to attract new investments in the auction for Next Generation Mobile Services (NGMS) spectrum (3G/4G). "There is no chance of new telecom operator/entrant as the market is already consolidating", said a senior official of PTA while speaking with ProPakistani. "Though PTA has sought applications through national and international media for the upcoming spectrum auction, apparently no new telecom player will bid for the auction", said the official adding that the process to be employed by the Authority for auction of 850MHz spectrum will be open outcry auction in case if demand is more than the available spectrum. Fearing poor response from the market, PTA had earlier decided to hire two types of consultancy services of internationally repute for market assessment and marketing of spectrum auction. The first consultant(s)/consulting firm was required to conduct the market study/analysis to advise PTA on future auction of the spectrum (850MHz, 1800MHz) in accordance with the RFP. The Interconnect Communications was the lowest bidder and was selected for the market assessment and on its report; the government dropped the idea to go for auction of all unsold spectrum i.e. 850MHz and 1800MHz simultaneously. Then there was a need of second consultant for marketing purposes to attract new investments for the spectrum auction of NGSM. For the second consultancy contract two consultant firms including Value Partners Management Consulting Limited UK (VMPCL) and C21 World were short listed and their technical evaluation was also reportedly completed. However, since there's zero percent chance of any new entrant, PTA decided not to hire second consultant to market the spectrum auction. Not to mention, Value Partners (VMPCL) had provided consultancy services for the previous 3G/4G auction to PTA held in April 2014. (May 2, 2016) propakistani.pk

Pakistan Telecommunication Authority (PTA) has released Information Memorandum (IM) for use of spectrum in the 850 MHz range and to grant the successful bidders rights to establish, maintain and operate Next Generation Mobile Networks (NGMN) and to provide Next Generation Mobile Services (NGMS) across Pakistan. The process of the award is named as the Next Generation Mobile Services Award (NGMSA). This Information Memorandum (IM) from PTA sets out the rules, process, planned timetable and other background information to help prospective Applicants to decide if they wish to apply to participate in the NGMSA. Hence, the document aims to provide operators with auction details. PTA also provided an overview of the Pakistan's telecommunication sector in the Annexure A. Prospective applicants are advised to seek their own expert advice on whether or not to participate in the award process and on any other matters concerning financial, legal, technical or other implications of the award process and associated policies. PTA may also conduct an information session for prospective applicants to explain the auction process and rules and other details. This information session will take place soon and will be announced by PTA. Its only purpose will be to clarify any questions that prospective applicants may have about the application process and auction itself. (April 29, 2016) phoneworld.com.pk

The Pakistan Telecommunication Authority (PTA), revealed in its report that the annual revenues of the telecom sector have touched almost Rs 449.6 billion during 2015 presenting a trivial drop as compared to previous year. The sector recorded annual revenues of Rs 463.5 last year, whereas these were Rs 439.5 billion in 2013/14, Rs 409.2 billion in 2011/12, and Rs 367.3 billion in 2010/11. The cause was that Wireless Local Loop (WLL) sector has been hit hard with around 40% drop in revenues of small WLL companies apart from PTCL. Even the cellular division presented a decline of around 2% in its profits stream from the last year, basically owing to biometric verification initiative and subsequent loss in subscriptions i.e blocking of illicit and unverified SIMs, which also offset the revenue cohort opportunities opened up with take off of 3G and 4G services. The report issued by PTA disclosed that sale

of new connections were also deferred at dealers and provisional outlets during the re-verification drive for a time period of 91 days. However, it is anticipated that data services would deliver incentive to revenue streams of the cellular mobile operators in upcoming years. Telecom sector is one of the most vibrant sectors of the economy, where technology is constantly fluctuating and bringing new avenues of growth and vigorous revenues, while making some of the customary ones less cost-effective. The telecom operators are also facing a new chapter of competition from the Over the Top (OTT) services such as Skype and WhatsApp etc, substituting part of their voice revenue. The report said these changing subtleties are closely redirected by the drifts in voice and data revenues, data revenues are now 25.6% of the total telecom profits compared to 12.4% in 2010. In latest years, data revenues of cellular mobile sector have revealed a considerable rise; an increase of over three times during the past five years. In 2015, mobile data revenues were Rs77.9 billion, which is 25% of entire cellular revenue. (April 29, 2016) phoneworld.com.pk

Pakistan's Ministry of Information Technology (MoIT) has instructed the Pakistan Telecommunication Authority (PTA) to auction a single concession for 850MHz frequencies, including airwaves left unsold from the previous spectrum auction in April 2014. The new 15-year, technology neutral license will consist of 2×10MHz at 824MHz-834MHz/869MHz-879MHz and carries a reserve price of US$395 million. All existing operators and any potential newcomers are eligible to participate in the sale. No timeline was set for the sale, but the MoIT's order calls for the watchdog to carry out the auction 'in the minimum possible time' and within the 2015-2016 financial year (ending June 30, 2016).
(April 28, 2016) telegeography.com

Qatar

President: Mr. Mohammed bin Ali Al Mannai
[Communications Regulatory Authority (CRA)]

A high-level delegation representing Qatar is participating in 27th Meeting of GCC Committee for Under-Secretaries of Post and Telecommunications being held in Riyadh from May 23 to 24, 2016. The Qatar delegation is headed by Mohammed Ali Al-Mannai, President of the Communications Regulatory Authority (CRA). The Qatar delegation comprises Eng. Khalid N. Sadiq Al-Hashmi, Assistant Under-Secretary of Cyber Security Sector, Ministry of Transport & Communications; Ali Al-Suwaidi, IT Section Head, CRA; and Eng. Faisal Al-Shuaibi, Institutional Relations Officer, CRA. During the meeting, the GCC Under-Secretaries Committee will discuss several topics related to the developing of postal and telecommunications sectors in the GCC member states and means of boosting cooperation. The meeting agenda includes discussions about the recommendations by several other committees and working groups including Committee Meeting for Posts Under-Secretaries and Chief Officers, Telecommunication Legislations and Regulations Committee, Roaming Working Group, GCC Technical Office of Technical Committee, and the Working Group of OTT Legislations and Regulations. The Committee will also discuss matters related to cooperation between GCC countries and the Hashemite Kingdom of Jordan. The decision on the date and location of the 28th Meeting of GCC Committee for Under-Secretaries of Post and Telecommunications will also be taken in the Riyadh meeting. (May 23, 2016) cra.gov.qa

The Communications Regulatory Authority (CRA) marked the World Telecommunication and Information Society Day (WTISD) by announcing its plans to integrate the International Telecommunication Union's (ITU's) World Radio Communication Conference (WRC) outcomes into Qatar's national regulatory framework. The outcomes were a result of comprehensive discussions during WRC-15 held in Geneva in November 2015. WTISD is celebrated across the globe to help raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICT) can bring to societies and economies, as well as of ways to bridge the digital divide. It was formerly known as World Telecommunications Day. Qatar is a signatory to the ITU Convention, which obliges Qatar to comply with the ITU's Radio Regulations. CRA President Mohammed Ali Al-Mannai signed the Final Acts revising the Radio Regulations at WRC-15 on behalf of Qatar. The benefits to Qatar from the outcomes of WRC–15 are considerable and CRA has developed a domestic spectrum management plan for these outcomes in preparation for bringing into force the latest version of ITU's Radio Regulations at the start of 2017. Integrating WRC-15 outcomes into Qatar's national regulatory framework will be achieved predominantly through updates to Qatar's National Frequency Allocation Plan and coordination with relevant stakeholders. "Updates to Qatar's regulatory regime reflecting the revisions to ITU's Radio Regulations will spur long-term investment in Qatar's ICT industry by improvements in a number of areas including broadband communications, air and road safety, and disaster relief," said Faisal Al-Shuaibi, CRA's spokesperson. The WRC-15 outcomes identified as being of particular interest to Qatar and which have a corresponding plan for implementation by CRA are summarized below:

- Allocation of spectrum to facilitate new mobile broadband applications
- A globally harmonized frequency range 694-894 MHz for Public Protection and Disaster Relief (public safety communications)
- A new resolution to allow development by the International Civil Aviation Organization (ICAO) of worldwide standards for unmanned aircraft systems' satellite communications in certain frequency bands, and international regulatory conditions that may be applied to these systems
- An allocation of 250 MHz in the frequency range 13.5-13.75 GHz (DL) and 14.5-14.75 GHz (UL) for downlink and uplink of the fixed satellite service (FSS)
- Mobility applications accessing FSS spectrum to receive a boost with 1.2m earth stations on vessels being approved beyond 330Km of shore, and with the access to the Ka-bands 19.7-20.2 GHz and 29.5-30 GHz by earth stations in motion (ESIMs)
- Improve the global tracking of aircraft anywhere in the world by satellite receivers of civilian aircraft using existing transmissions from aircraft. This

is a high profile issue after the disappearance of Malaysian Airlines Flight MH370 in March 2014
- Consider spectrum demand for on-board communication stations in the maritime mobile service
- Enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication
- Allocate 15 KHz spectrum in the frequency range 5250-5450 KHz for Amateur Radio Service (ARS)
- A global spectrum allocation for wireless avionics intra-communications (WAIC) to facilitate the transition to wireless within aero planes
- A global allocation for short-range high-resolution automotive radar in the 79 GHz frequency band to improve road safety and efficiency in technology for driverless cars. (May 17, 2016) cra.gov.qa

As part of its mandate to ensure effective and legitimate use of the radio spectrum in Qatar, the Communications Regulatory Authority (CRA) has launched a state-of-the-art nationwide Automated Spectrum Monitoring System (ASMS) to ensure interference free spectrum to authorized licensees. Monitoring the radio spectrum is essential under CRA's Spectrum Policy and Regulatory Framework to ensure its legitimate use. Monitoring identifies and eliminates sources of interference that degrade public or private telecommunication networks, for example and not limited to radio and television networks, mobile telecommunications networks, and critical frequencies used for aviation, maritime operations and emergency services. Monitoring is also needed to investigate harmful interference complaints and to collect data for determining compliance by radio frequency users with national rules and regulations. "Radio spectrum is a scarce national resource and ASMS infrastructure is vital for preventing its illegal use, as well as reducing cases of interference. CRA has invested in this infrastructure to ensure all public and commercial radiocommunication networks operate effectively and without interruption. ASMS infrastructure is also essential to provide the necessary support in managing spectrum during major international and national events such as World Cup 2022, where high spectrum demand requires detailed planning and monitoring," said Faisal Al-Shuaibi, CRA's Spokesperson. The new ASMS ecosystem comprises:
- Four Fixed Monitoring Stations (FMS) and Directional Finding (DF) systems
- Two Time Difference on Arrival (TDOA) Monitoring Stations
- Two Mobile Monitoring Stations (MMS)
- National Control Center (NCC)

The fixed stations are unmanned, remotely controlled stations strategically located in different parts of Qatar to maximize monitoring and geolocation results. The mobile monitoring stations are installed inside customized vehicles deployable in any area of the country as required. The ASMS components are used by CRA to monitor operational radiocommunication equipment throughout the state of Qatar to check "bandwidth occupancy" and to ensure all spectrum bands are used as specified. Idle spectrum bands are also monitored and recorded for future planning purpose. Monitoring is conducted 24-hours a day through the National Control Center and the fixed and directional finding stations. Mobile monitoring is conducted by CRA's experts at regular intervals and each time CRA receives a complaint of interference or illegitimate use of spectrum. The fixed and mobile stations of Qatar are being registered with the International Telecommunication Union (ITU), to empower CRA to be a part of international monitoring activities for research studies through ITU's Radiocommunication Bureau. CRA encourages all consumers of radio communication devices to report any interference issues or concerns through the dedicated Consumer Telecom Hotline – 103, or via email at spectrumaffairs@cra.gov.qa.
(May 2, 2016) cra.gov.qa

Saudi Arabia

Governor, Deputy Chairman of the BoD: Dr. Abdulaziz Bin Salem Al Ruwais
[Communication & Information Technology Commission (CITC)]

International Data Corporation (IDC) identified that digitization will play a critical role in enabling the Kingdom's vision for the future. Saudi Arabia recently announced Vision 2030, a long-term economic blueprint for branching away from its dependence on oil. "Vision 2030 includes regulatory, budgetary, and policy changes that will impact all major aspects of the economy, with technology featuring as a key enabler and driver for many of the changes envisaged," said Jyoti Lalchandani, IDC's group vice president and regional managing director for the Middle East, Africa, and Turkey. "Implemented correctly, digitization initiatives will help drive economic and social development, promote good governance, and enhance national security. However, for this to happen, there must be a concerted effort by organizations across sectors and industries to align their ICT strategies with the Vision and its overarching executive programs." To assist in the process, IDC's research paper identifies key challenges which must be addressed to facilitate the transformation and provide guidance for the government, public sector organisations, telecommunication service providers and other industries in general. Abdulaziz Al-Helayyil, IDC's regional director for Saudi Arabia, Kuwait, and Bahrain and head of business development for national ICT development in the GCC added: "There is a clear opportunity to leverage emerging information and communications technologies in order to enhance public service delivery and overall government effectiveness and efficiency. "Indeed, ICT can lead to significant improvements in the citizen experience if employed through an omni-channel approach, while the implementation of shared services and e-procurement tools can considerably improve the efficiency, cost-effectiveness, and transparency of government operations." IDC believes that the digitization of industries will ultimately lead to improved competitiveness, with ICT proving invaluable in automating end-to-end business processes across the entire supply chain. Manufacturing is one obvious beneficiary, where the Internet of Things (IoT) will enable manufacturers to leverage a combination of software, sensors, and IP-enabled connectivity to drive innovation around their products and processes. But manufacturing is not alone,

with the Kingdom's healthcare and tourism industries also poised to embrace emerging technologies in order to enhance the services they offer. IDC's paper proposes that digitization initiatives must not be the sole preserve of large-scale enterprises, explaining that the integration of technology into their operations by SMEs can play a crucial role in increasing their productivity, enhancing their contribution to national economic output, and thereby supporting the diversification aims of Vision 2030. However the implementation of a sophisticated nationwide digital infrastructure will be integral to empowering the citizens of the future and providing businesses of all sizes with the tools required to drive greater growth, agility, and competition for the benefit of the Kingdom as a whole. (May 24, 2016) itp.net

Telecom operators in Saudi Arabia are expected to gradually increase their prices for data services to keep up with the newest modifications to its revenue formulae and maintain its profits, said a new report by Riyadh Capital. The fixed line segment has witnessed minor changes, the research firm noted, indicating that the data segment will maintain its superior position with regards to the development of housing and technologies in the Kingdom. As for Saudi Telecom Company (STC), the largest operator in Saudi Arabia, the revenue formula has already begun affecting the company's profitability as revenues from data increased whereas profit margins were down compared to the mobile phone segment, Riyad Capital added. (May 14, 2016) english.mubasher.info

Sri Lanka

Director General: Mr. Sunil S. Sirisena
[Telecommunication Regulatory Commission (TRC)]

New taxes imposed by Sri Lanka's government will result in stagnant revenue growth this year as well as lower profitability, Fitch Ratings forecasts. The regulatory risks have risen for telcos since the new government assumed office last year. It increased taxes on telecoms operators in an effort to shore up revenue. Effective from May, the government imposed a VAT rate of 15 per cent and nation building tax of 2 per cent on telecoms services, which will increase the tax on voice and data services to 50 per cent and 32 per cent, respectively, from 28 per cent and 12 per cent. The government abandoned an earlier tax proposal that could have diluted the industry's EBITDA margin by an average of 6-7 percentage points. Fitch in mid-January revised the outlook on Sri Lanka's telecoms sector to stable from negative following the new budget. The agency expects market leader Dialog Axiata's revenue to decline by low-single digits as voice and data usage could weaken following the tax increases. Dialog's operating EBITDA margin could narrow due to lower usage and decline in profitable international voice business. This would more than offset the improving margin on data segment revenue and savings from its new Bay of Bengal undersea cable.

Fitch, however, expects Dialog's revenue to grow by mid-single digits during 2017-19, driven mainly by higher data revenue and a gradual recovery in usage. Dialog's mobile data revenue grew by 64 per cent last year and accounted for about 15 per cent of mobile revenue. Dialog, the market leader with 10.5 million connections and 41 per cent share, will likely increase its 2016-17 capex to 30 per cent of revenue from 23 per cent last year to expand its 3G/4G networks and fiber infrastructure. Fitch said the tax increases could accelerate industry consolidation to reduce the number of players to three from five. Two smaller, unprofitable operators – Hutchison Lanka and Bharti Airtel's Sri Lanka subsidiary, Airtel Lanka – may exit the industry. It believes Dialog and Sri Lanka Telecom could acquire smaller telcos to strengthen their market position and consolidate spectrum. Malaysia's Axiata Group and India's Bharti Airtel announced in February they were discussing merging their operations in Sri Lanka to create a company serving half the country's 25 million mobile connections. Dialog reportedly approached authorities in early February about a possible takeover of Airtel Lanka, which has a 9 per cent share with 2.3 million mobile customers. (May 24, 2016) mobileworldlive.com

Sudan

Director General: Dr. Yahya Abdullah Mohamed
[National Telecommunication Corporation (NTC)]

Emirates Telecommunications Corporation (Etisalat) has announced the signing of a share purchase agreement with Kuwait-based Zain Group for the sale of its 92.3% stake in Sudanese fixed line operator Canar Telecommunication Company (Canar). Under the terms of the deal, Etisalat will receive a total cash consideration of AED349.6 million (US$95.2 million) upon completion of the transaction, implying a price per share of AED17.50. The move will consolidate Zain Group's presence in Sudan, where it already owns the mobile market leader, which accounted for 11.87 million wireless subscribers at the end of 2015. The deal remains subject to certain conditions, including the approval of Sudanese regulator the National Telecommunications Corporation (NTC) and the country's competition authorities. (May 3, 2016) telegeography.com

Tunisia

President: Prof. Hichem Besbes
[National Telecommunication Commission (INTT)]

Egyptian web development solutions provider IPL media has begun testing a public Wi-Fi network in Tunisia. CEO Hatem Zaghloul told that trials began on May 25 in the city of El Ghazala in partnership with Tunisie Telecom, Orange Tunisia and Ooredoo Tunisia. The test phase is expected to last several weeks and to lead to the launch of a Wi-Fi service available to the public. The project was hashed out at a March meeting between Zaghloul and Tunisia's minister for development and communications, when they agreed to run an experiment over 4 sq km to determine the effectiveness of this wireless technology and network architecture. (May 27, 2016) Daily News Egypt

Turkey

Acting Chairman: Dr. Omer Fatih Sayan
[Information & Communication Technologies Authority (BTK)]

Turkcell, Turkey's leading cellco by subscribers has issued a statement announcing it has authorised its management to negotiate the acquisition of 100% of the share capital of Isbank (Is Bankasi) subsidiary IsNet. IsNet was founded as an ISP in 1999, with the Isbank conglomerate providing 100% of the investment. The company added a Fixed Telephony Service (FTS) Operator license to its portfolio in 2004.
(May 5, 2016) telegeography.com

United Arab Emirates

Director General: Hamad Obaid Al Mansoori
[Telecommunication Regulatory Authority (TRA)]

The Telecommunications Regulatory Authority (TRA) and Smart Dubai Office have participated in the Study Group 5 meeting under the standardization sector of the International Telecommunication Union (ITU). The sessions were held in Kuala Lumpur, Malaysia, during the 11th Symposium on ICT, Environment and Climate Change hosted by Malaysian Communications and Multimedia Commission. Attended by more than 300 participants, the symposium aimed to spread awareness within the Environment and Climate Change sectors and identified ideal ways to address the challenges faced by these vital sectors. It encouraged stakeholders to adopt the latest solutions for harnessing smart, innovative and sustainable tools to serve humanity. Mohamad Ali Hanafiah Mohamad Yunus, Chief Officer for Content, Security and Innovation at the Malaysian Communications and Multimedia Commission, opened the symposium in the presence of Chaesub Lee, Director of ITU's Telecommunication Standardization Bureau (TSB), and Dato' Johari, Deputy Minister of the Malaysian Communications and Multimedia Commission. Four sessions were held, the first focusing on the role of policies and standards for managing electromagnetic fields and the second discussing how to protect telecommunication devices from disasters such as lightning strikes. The third session was headed by the TRA as represented by Eng. Nasser Al Marzouqi, the UAE's Representative to the ITU in Geneva and Vice Chairman of Study Group 5, and focused on ITU activities geared towards development and sustainability goals. The fourth session discussed ways to achieve environmental sustainability and Noora Al Suwaidi, Head of Strategy and Performance Management at Smart Dubai Office, was a speaker in this session and she introduced the initiative of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to transform Dubai into a 'smart city.' She shared Smart Dubai's plans and goals as well. More than 150 entities from ITU member countries, academic organizations, sector members and related regional and global entities participated in the Study Group 5 meeting where more than 105 contributions were introduced. The UAE showcased a number of contributions related to the performance indices of smart cities. The meeting was chaired by Ahmed Zeddam, Chairman of ITU-T Study Group 5. It adopted new recommendations and amended others, and discussed how to limit electronic wastes as well as the role of ITC in this regard. Also discussed and approvedthe Key performance indices of smart and sustainable cities, human exposure to electromagnetic fields, the effects of electromagnetic fields on human safety, the protection of telecommunications devices from disasters such as lightning strikes, and combat counterfeiting. ITU-T Study Group 5 (SG5) is responsible for studies on methodologies for evaluating ICT's effects on climate change and for publishing guidelines on the eco-friendly use of ICT. As part of its environmental mandate, SG5 is also responsible for studying design methodologies for reducing the adverse environmental effects of ICTs through recycling of ICT facilities and equipment, for example. ITU-T SG5 has four main objectives. The first is to protect telecommunications equipment and installations against damage and malfunction due to electromagnetic disturbances, while the second is to ensure the safety of personnel and users of networks against the current and voltages present in telecommunication networks. The third is to avoid health risks from electromagnetic fields (EMFs) produced by telecommunication devices and installations, and the fourth is to guarantee good quality of service (QoS) for high-speed data services by following the requirements for copper cable characteristics and the coexistence of services delivered by different providers. (May 14, 2016) wam.ae

REGULATORY ACTIVITIES BEYOND THE SAMENA REGION

REGULATORY UPDATES

Albania

The Postal and Electronic Communications Authority (Autoritetit Te Komunikimeve Elektronike Dhe Postare, AKEP) has awarded PLUS Communications a 2100MHz concession, paving the way for Albania's smallest wireless provider by subscribers to introduce high speed mobile broadband services. The concession consists of 2×10MHz at 1970MHz-1980MHz/2160MHz-2170MHz and 5MHz of unpaired spectrum at 1915MHz-1920MHz. PLUS paid EUR2.09 million (US$2.4 million) for the license. PLUS has missed out on previous spectrum auctions for additional airwaves for 3G or 4G services but was given a reprieve in September 2015 when AKEP made all spectrum allocations in the 900MHz, 1800MHz and 2100MHz bands technology neutral. In a related development AKEP has also granted a 2600MHz license to Albtelecom, which previously offered mobile services under the Eagle Mobile banner. Albtelecom purchased two blocks of 2×5MHz in the 2500MHz-2690MHz band for EUR1.04 million, and an additional two blocks of 2×5MHz in the same range for EUR1.14 million. (April 26, 2016) telegeography.com

Angola

Minister of Telecoms & IT Jose Carvalho da Rocha gave a speech on developments in the ICT sector at a press conference held on the premises of the State Administration's Strategic Corporate Information and Marketing Office (GRECIMA). As reported by Angolan news agency ANGOP, the minister clarified that the 2017 deadline for placing in orbit the Angosat 1 communications satellite will not be undermined by the current financial difficulties facing the country, whilst also highlighting that 20,000 kilometers of fiber-optic cable is live in Angola, connecting 18 provincial capitals. He also spoke of the need to review pricing of telephony and internet access, stating that it is necessary to change the taxation method for communications services in Angola 'in order to allow the user to pay the real price for the use of these services'. Regarding cyber security, the official said that the ICT sector is committed to ensuring 'safer' usage of the internet in the country, but denied claims that the government's wants to 'control' online social media. Elsewhere in his speech, the ICT minister highlighted

the fact that state-owned fixed line incumbent Angola Telecom (AT) is undergoing transformation to turn it into a 'major contributor to the state budget.' Pedro Durao Leitao, a former director of Portugal Telecom, has been appointed by the Angolan government to coordinate the interim committee managing the restructuring of AT. According to a document from the Ministry of Telecoms & IT obtained by Portuguese newspaper Lusa, an interim management committee has been set up for the operations of the company, while the management contract and program are being negotiated. The report continues that the Angolan government is aiming to hand over the management of the telco whilst selling assets as part of its transformation. The new management will be tasked with: stemming market share loss, increasing revenue and diversifying services among other objectives. The restructuring process provides for the capitalization of AT through the sale of its assets and the transformation of satellite communications provider Infrasat. In another aspect of its restructuring, AT is among the three operators lined up for authorization to provide mobile services alongside existing cellcos Unitel and Movicel under a new unified (convergent) licensing regime. Telecompaper adds that whilst Unitel and Movicel will receive unified telecom services licenses alongside the newcomers; there are also plans for setting up regional operators as part of the new licensing process. Regarding the entry of other new players to the Angolan market, such possibilities 'remain open', with the exceptions of mobile telephony and pay-TV services, according to the technical manager of the Angolan Institute of Communications (INACOM), Leonel Augusto, quoted by Jornal de Angola.

(May 20, 2016) Telecompaper

Armenia

The national telecoms regulator, Public Services Regulatory Commission (PSRC), has passed a decision compelling all domestic fixed line operators 'to publish information on coverage and availability of fixed networks, as well as connectivity technologies and the range of services provided to residences of settlements'. The PSRC's Gevorg Gevorgyan is cited as saying that the watchdog hopes the move will lead to a marked improvement in overall levels of service quality for end users. Fixed line operators – which include the likes of ArmenTel (Beeline), UCOM (including iCON), GNC-ALFA (Rostelecom) and Karabakh Telecom (K-Telecom) – have been given three months to comply with the edict. The PSRC's decision mirrors an earlier one imposed on mobile operators, which now provide information on network availability and all possible options for connection to the mobile network, the watchdog said.

(May 5, 2016) Arka News agency

Australia

Vodafone Hutchison Australia (VHA) has requested permission from the government to acquire 2×10MHz blocks of 700MHz spectrum that went unsold in an auction held by the Australian Communications and Media Authority (ACMA) back in 2013. If accepted, VHA's proposal would see the ACMA either charge the telco an upfront fee of AUD571.81 million (US$420.03 million), or allow it to pay via three installments over the period 2018-2020. The latter option would see VHA pay AUD274.5 million on January 31, 2018, AUD159.9 million on January 31, 2019 and AUD159.9 million on January 31, 2020, for a total of AUD594.3 million. The cellco's chief strategy officer Dan Lloyd told ZDNet: 'For several years, 15MHz of 700MHz spectrum has been lying unutilized. Vodafone recently put forward a proposal to acquire some of this spectrum. Our proposal is a win-win for competition and for government, as we have offered to pay the same effective price for the spectrum as the price paid in the 2013 auction. The Australian government would be fairly compensated for the spectrum at the market price, while customers in regional and rural areas would benefit from increased competition, as it would allow us to extend coverage into these areas. Telstra purchased 2×20MHz blocks of 700MHz spectrum in the 2013 auction, and Optus acquired 2×10MHz. The remaining 2×15MHz of 'digital dividend' spectrum remained unsold, after VHA opted not to participate in the process. (May 10, 2016) telegeography.com

Bahamas

The Utilities Regulation and Competition Authority (URCA) has rejected arguments from Cable Bahamas (CBL) that changes in the ownership structure of fixed line incumbent Bahamas Telecommunications Company (BTC) will have an impact on competition. CBL had complained that Liberty Global's acquisition of a majority stake in BTC via its takeover of Cable and Wireless Communications (CWC) would negatively impact competition, as BTC would be able to use its new parent's scale to negotiate exclusive rights to premium pay-TV content. CBL claimed that the takeover would: 'impede, if not preclude robust competition in the television and broadband markets in the Bahamas by effectively blocking Cable Bahamas and other licensed operators... from accessing popular content and audio visual programming. The cableco also expressed concerns over its access to international capacity, as the transaction would see Liberty acquire the ARCOS cable system – on which CBL is reliant for the bulk of its traffic between the Bahamas and the US – which was taken over by CWC via its acquisition of Columbus Communications in early 2015. CBL claimed that Liberty's acquisition of CWC would strengthen ties between BTC and Columbus, giving the former 'an even stronger motivation to use the ARCOS-1 cable to impede effective competition from Cable Bahamas and other licensed operators in the Bahamas.' URCA rejected both of CBL's arguments and dismissed the operator's concerns regarding the pay-TV market as 'highly speculative'. The watchdog also pointed out that CBL is currently the dominant provider in the segment, and had itself made use of exclusive content and programming rights. Regarding international capacity, URCA rejected CBL's claims, noting that it had already dismissed such concerns when it had greenlit CWC's purchase of Columbus. (May 5, 2016) Tribune242

Belarus

Belarus' Communications and Information Technology Minister Sergei Popkov said that the government has no plans to auction off its stake in the country's largest mobile network operator by subscribers, MTS Belarus, this year. The Minister confirmed: 'Currently there are no such plans. I would like to note that today there are no such examples on the telecommunications market. It is not the best time to sell.' MTS Belarus is a joint limited liability company controlled by state-owned Intercity Communications (51%) and Mobile TeleSystems (MTS) of Russia (49%). The government has tried repeatedly to offload its majority shareholding, with the high asking price proving to be a persistent stumbling block. The government has not hidden its desire to sell off its 51% shareholding in MTS Belarus, despite numerous previous failures to do so. The latest attempt took place in February 2014 but the tender received no bids despite it reducing the price of its controlling stake from US$1 billion to US$863 million, following a series of unsuccessful attempts to sell the stake at the higher price. In February 2015, however, the government dusted off the plan once again with the then first deputy chairman of the state property committee of Belarus, Alexei Vasilyev, quoted as saying: 'The value of shares in MTS ... remains the same in comparison with the previous attempt'. (May 13, 2016) BelTA

Belize

The Belize Public Utilities Commission (PUC) has announced that the country's first internet exchange point (IXP), the BIXP, was successfully launched in Belize City on April 27 at the campus of the University of Belize. The PUC facilitated the process, with support from regional and international agencies, including Packet Clearing House (PCH) and the Caribbean Network Operators Group (CaribNOG). Bevil Wooding, internet strategist at PCH, commented: 'The new IXP is expected to help improve internet service[s] in Belize by eliminating dependence on international connectivity for local internet traffic exchange. The new facility, the twelfth IXP to be activated in the Caribbean, will lower the average per-bit delivery cost for local ISPs and significantly reduce the round-trip time for internet traffic between local ISP networks. As a result, users can expect a more reliable, more resilient local internet.' ISPs participating in the BIXP project include, Alliance IP, Belize Telemedia, BroadBand Belize, Centaur Communications Corporation, NetKing, Network Solutions and SpeedNet. (May 4, 2016) telegeography.com

Bolivia

The telecoms watchdog, the Autoridad de Telecomunicaciones y Transportes (ATT), says it has received four applications to run the country's mobile number portability (MNP) system. Proposals have been submitted by Systor International, Comtec, Ictec-Mediafon Datapro and Porting Access. The regulator has still to give a firm date for when it expects MNP to be implemented for the country's 10.7 million mobile users, although it previously indicated a target of launching the service by the end of this year. (April 26, 2016) telegeography.com

Brazil

The board of the National Telecommunications Agency (ANATEL) has approved additions to the long-standing wireless network sharing agreement that exists between Claro Brasil and Telefonica Brasil (Vivo). According to local press reports, the pact – which encompasses sharing of equipment in the 2.5GHz band – will see the joint deployment of 180 new base stations in rural areas, taking the total number of shared cell sites to 412. The original deal was signed back in May 2013, after the Brazilian cellcos acquired LTE-suitable 2.5GHz frequencies in June 2012's spectrum auction.

(May 27, 2016) telegeography.com

Bulgaria

The telecoms regulator the Communications Regulation Commission (CRC) has awarded 2×5MHz of additional spectrum in the 1800MHz band to domestic cellco Telenor, thus increasing its total holding in the band to 2×15MHz. Telenor disclosed that it had paid the respective license fees of over BGN7.0 million (US$4.1 million) and will commence utilizing the new spectrum in the coming days. The additional frequencies will be used for further improving the quality of the company's 4G LTE services by allowing Telenor to increase the maximum theoretical data speed in its 4G network to 100Mbps. Telenor launched its 4G network in December 2015 and currently offers LTE services to 75% of the population. (May 5, 2016) telegeography.com

Chile

Chile's government has given approval to the country's three largest mobile operators to start using the spectrum they won in the 700MHz band, a process that has been held up by a legal dispute. Entel, Movistar and Claro picked up 30MHz, 20MHz and 20MHz, respectively, in an auction in February 2014, with the remaining 20MHz reserved for emergency services. However, through a series of injunctions, consumer rights group Conadecus successfully blocked the handover of the licenses until midway through last year when the companies were allowed to start rolling out infrastructure. Conadecus has continued to appeal regardless. Speaking during the Telecommunications Day event celebrated on May 17 in Santiago, transport and telecommunications minister Andrés Gomez-Lobo (pictured) said that two of the three operators had already turned on their 700MHz networks, almost a year ahead of the deadline included in the concessions licenses of March 2017. Entel executives told press last month that the company was just waiting for the go-ahead to "throw the switch," while Telefónica's Chilean unit Movistar said in February it would launch LTE services on the 700MHz band and introduce 4.5G carrier aggregation technology starting in the second half of this year.

CONTRACT OBLIGATIONS

Under their contracts, the companies are obliged to provide service to 1,281 localities nationwide and coverage on 13 highways stretching 850km. According to telecoms regulator Subtel, with the start of service, 43% of that coverage is being met. Contract obligations also require the telcos to provide coverage to 503 municipal and subsidized schools for free for the first two years and to provide roaming services to other network operators and MVNOs on the band. Subtel head Pedro Huichalaf said that some US$700mn had been invested in the 700MHz band, of which US$300mn went into infrastructure and US$400mn for the purchase of equipment and design of commercial plans. According to a study by IDC released this month, Chile saw 50% growth in 4G subscriptions at the end of 2015 versus end-3Q15 thanks to falling prices and the continuing trend towards the use of smartphones. Internet penetration reached 72% of homes at the end of 2015, with the rate reaching 74% in urban areas and 56% in rural areas, according to a Subtel survey.

INJUNCTION

Through legal action, Conadecus alleged that the three winners of the 700MHz band should not have been able to participate in the auction as they all surpassed the 60MHz spectrum limit imposed by the supreme court in 2009 for the award of the AWS band, and that awarding the 700Hz band to them only accentuates their market dominance. Whether that spectrum limit should have applied to the 700MHz band is unclear and Subtel has publically said that the spectrum cap was intended to apply specifically to the 2009 auction for the AWS band. (May 19, 2016) bnamericas.com

Telecoms group Entel has unveiled plans to invest US$3.5 billion by the end of 2020, said CEO Juan Hurtado. According to the official, more than half of the investment will be used to modernize and expand the operator's infrastructure in Chile, whilst around 30% of the funds will be used to develop the infrastructure of its Peruvian division, as well as potentially acquiring new licenses. 'This five-year investment plan is ambitious and will be sustained by our own resources … national and foreign funding and a capital increase,' Mr. Hurtado explained. Entel's shareholders are due to vote shortly on a capital increase of USD540 million. (May 3, 2016) La Tercera

China

China Broadcasting Network (CBN) became the country's fourth telecoms operator after winning a license from the government this week. The Ministry of Industry and Information Technology (MIIT) said on its web site that it had awarded a basic telecoms service license to the state-owned broadcaster to promote what China.org described as the "three-network convergence" - a state-advocated project aimed at merging telecom, television and Internet services into a single network. MIIT revealed few other details, commenting only that CBN is authorized to provide domestic Internet data transmission and telecoms infrastructure services. China Mobile, China Telecom and China Unicom currently dominate the local Chinese market. China Mobile is also the largest mobile operator in the world, reporting a total mobile customer base of 833.85 million at the end of March. China Telecom reported an overall customer base of 202.64 million mobile users at the end of March this year. China Unicom has struggled to maintain customer growth, but previously said it expected to add 6.61 million mobile customers in Q1, reversing the quarterly subscriber losses it posted last year. The telco returned to monthly mobile customer base growth in January and by the end of February had 257.8 million subscribers. Analysts do not see CBN having a major impact on the business of its three rivals, at least in the near term. "We do not think CBN will become a major threat to existing telecom operators in the near term, unless CBN can resolve its own financial bottlenecks and complete the process of national television and broadcasting network consolidation," Nomura analyst Leping Huang wrote in a research note, Reuters reported. Reuters added that Huang expects the company to spend CNY20 billion (€2.7 billion) in telecoms this year, which is equivalent to 5% of China's total spending in the sector.

(May 7, 2016) totaltele.com

Cote d'Ivoire

The government of Cote d'Ivoire and the management team of Orange Group have reportedly signed a memorandum of understanding (MoU) relating to the long-planned merger of fixed line operator CI-Telecom and mobile unit Orange Cote d'Ivoire. The former is 48.5%-owned by the government and 51.0%-owned by Orange Group, with the remaining minor stake held by current and former employees, while the cellco is 85%-owned by Orange Group, with the remainder held by SIFCOM. The agreement was signed on April 28 by Bruno Mettling, CEO of Orange Middle East and Africa (OMEA), Abdourahmane Cisse, the Ivorian Minister of Budget, Minister of Economy Adama Kone, and Minister of Digital Economy Bruno Kone. Discussions with the state are expected to be concluded by the end of the year, with the merger expected to be formalized by June 2017. Speaking to the local media afterwards, Mr. Kone suggested that the government will ultimately hold a 31% stake in the new entity, compared to Orange's 69% shareholding. (May 3, 2016) Jeune Afrique

Cyprus

Cyprus Telecommunications Authority (CYTA) has denied reports that it is looking to sell off its Greek division CYTA Hellas. A press release stated: 'CYTA Hellas adds strength to the overall value of CYTA group and is an investment with strategic features in the Greek telecommunications market.' It went on to add that 'there is no suggestion of interest in CYTA Hellas and no procedure [has been] carried out'. The group says it is already working on a new five-year business plan for CYTA Hellas and is preparing to launch a number of new services, though it did not give further details. Last month, rumors had circulated saying that CYTA was

looking to offload its Greek unit, with Athens-based fixed and mobile operator Wind Hellas linked as a potential buyer. Online news portal In-Cyprus reported that the management of state-owned CYTA was keen to sell the Greek broadband provider and MVNO, which has been dragging down the parent company's financial results. (May 19, 2016) telegeography.com

Dominican Republic

An official at the Dominican Republic's telecoms regulator INDOTEL says internet users in the country will be able to benefit from cheaper and faster broadband services within the next two years, once fiber-optic infrastructure is extended nationwide. the watchdog's Executive Director Alberty Canela said that the government is working on the deployment of a fiber backbone network, and has already completed a 219km section linking Santo Domingo, Santiago and Puerto Plata. In January 2014 INDOTEL unveiled details of its 'National Fiber Optic Network' project, which was included in the government's 2014-2015 Biennial Plan. The US$60 million network rollout is thought to be co-funded by the World Bank. (May 19, 2016) Dominican Today

European Union

The Council of the European Union (EU) adopted its official position on a draft decision to make the 694MHz-790MHz (700MHz) frequency band available across Europe by mid-2020 to boost mobile broadband service coverage, whilst prioritizing the 470MHz-694MHz band for broadcasting until at least 2030. In a press release Henk Kamp, the Dutch Minister for Economic Affairs, was quoted as saying: 'With the opening of the 700MHz band for mobile broadband an important step towards the availability of broadband for everybody in the EU has been taken. Fast internet is not only important for economic development in the EU, but also for the daily life of its citizens.' According to the Council position, all 28 EU countries must reassign the 700MHz band to wireless broadband services under harmonized technical conditions by 30 June 2020. If they are unable to do this they may decide, for duly justified reasons, to delay the availability of the band by up to two years. Reasons for such a delay could include for instance unresolved harmful interferences or cross-border coordination issues. Member states must adopt a 'national roadmap' by 30 June 2018, setting out how they will implement the decision. These roadmaps will be public. The Council position stipulates that member states must ensure the availability of the 470MHz-694MHz band for digital TV and wireless microphones at least until 2030, based on national needs, to give the audiovisual sector long-term regulatory predictability as regards the availability of sufficient spectrum. Member states would be allowed to use this range for other purposes, including mobile internet services, under certain conditions. The 470MHz-790MHz range is currently widely used for digital TV and wireless microphones (e.g. in theatres, concerts and sporting events), but the high speeds and penetration provided by the 700MHz band make it ideal for mobile internet services. The coordinated use of the frequency is also aimed at promoting 4G take-up, and is expected to make it easier to roll out 5G (from around 2020). The general approach as stated will be the Council's position for negotiations with the European Parliament. The Parliament has not adopted its position yet. Both institutions must agree on the text before it can become law. Major European markets have already moved ahead with 700MHz mobile broadband auctions: Germany sold off 700MHz licenses in May 2015, whilst France followed suit in November that year (from 6 April 2016 French cellcos were authorized to provide services in the 700MHz band in a total of 2,374 towns). Sweden has scheduled its 700MHz auction for late-2016, whilst UK regulator OFCOM has laid out proposals to make spectrum in the 700MHz band available for mobile broadband 'as soon as practicably possible' and echoed the EU's 2020 deadline for service availability. (May 27, 2016) telegeography.com

The European Union's 28 member states are at very different stages in the development of their digital economies, according to an EC report, which includes a league table of how countries are faring with mobile broadband. Nordic countries were described as "among the most advanced in the world," whilst others "still have a lot of catching up to do", the European Commission (EC) report observed. When it comes to mobile broadband, which includes the availability of radio spectrum and the take-up of services, Finland, Sweden and Denmark took top spot with Estonia, while the lowest scores were registered by Hungary, Greece and Portugal. The European Digital Progress Report also found that total telecom services revenues declined by 10 per cent in Europe since 2012 and operators in Europe generated less revenue than their US counterparts. Revenues went down from €237 billion in 2012 to a forecasted €213 billion in 2016 (based on figures of 26 member states, which covered about 98 per cent of the total EU market). The US also reduced its figures from €252 billion to €240 billion, but surpassed Europe despite its smaller population, the report noted. Meanwhile, revenue from mobile voice and fixed voice revenues unsurprisingly decreased by over 25 per cent since 2012 but mobile data grew by 10 per cent, and will represent over a quarter (26 per cent) of total telecom revenues this year. Fixed and mobile voice services made up 57 per cent of total telecom revenues in 2012, but will only represent 47 per cent in 2016. By contrast, the growth in mobile data services is hailed as "remarkable". "The growth in mobile data services could not, however, compensate for the major decline in voice," the report said. Mobile broadband represented a "fast growing segment" of the broadband market. More than 60 per cent of all active mobile SIM cards use mobile broadband and there are 75 active mobile broadband SIM cards per 100 people in the EU, up from 34 four years ago. The growth was linear over the last three years with over 40 million new subscriptions added every year, the report said. The Nordic countries and Estonia again lead the way, where there are already more than 100 subscriptions per 100 people, while in Hungary, Greece, Portugal and Slovenia the take-up rate is still below 50 per cent. However, mobile broadband is still mainly complementary to fixed broadband: In 2015, just 8.1 per cent of EU homes

accessed the internet only through mobile technologies. Finland and Italy were leaders in mobile access to internet with 31 per cent and 22 per cent of homes using it in 2015, respectively. Most of the mobile broadband subscriptions are used on Smartphones rather than on tablets or notebooks but tablets are expected to be the "touchstone for mobile data traffic" in 2020, exceeding Smartphones and laptops in average usage. Mobile data traffic in 2020 is expected to be six times higher than in 2015. BT's acquisition of EE in the UK and Liberty Global's acquisition of Base in Belgium suggests that owning a mobile network is an advantage for a fixed operator, which is worth investing in even if the operator is already present in mobile as a virtual operator, the report said. Operators continued to show significant interest in M&A in Europe but truly cross-border mergers "still seem to be elusive," the report observed. In 2015 the main trend was still in-market consolidation or diversification in the same market. 4G mobile broadband availability reached 86 per cent, up from 27 per cent in 2012. 4G has been commercially launched in all states but coverage is still "substantially below" that of 3G. As of October 2015, 80 per cent of operators offered 4G services on LTE networks. LTE is most widely developed in the Netherlands, Sweden and Denmark, while commercial 4G services were launched only last year in Bulgaria. LTE deployment has focused so far mainly in urban areas, as only 36 per cent of rural homes are covered. The report used a digital economy and society index (DESI) to measure success, which summarizes relevant indicators on Europe's digital performance and tracks the progress of member states in digital competitiveness. The index also looks at skills, use of internet, integration of technology and digital public services, in addition to connectivity. Denmark, the Netherlands, Sweden and Finland were found to have the most advanced digital economies in the EU followed by Belgium, the UK and Estonia. Romania, Bulgaria, Greece and Italy have the least advanced economies. "The aim of this report is to achieve a real digital union by monitoring the implementation of digital reforms in member states to grasp the opportunities available to citizens and businesses of the digital single market," the EC said. Last month, Andrus Ansip, vice president for the digital single market, said: "We need the right scale for technologies such as cloud computing, data-driven science and the internet of things to reach their full potential." (May 24, 2016) mobileworldlive.com

The European Commission (EC) officially blocked CK Hutchison's proposed £10.5 billion acquisition of O2 UK, citing "strong concerns" over the deal's impact to UK customers, and a potential harm to "innovation in the mobile sector". The decision follows an in-depth investigation of the deal by the EC, which would have seen a tie-up of Telefonica's O2 and Hutchison's Three operations, creating a new market leader in the country. Antitrust regulators were widely expected to block the deal, so the news hardly comes as a surprise, despite a number of proposed concessions offered from CK Hutchison, "which failed to adequately address the serious concerns raised by the takeover," said the EC. Some of the operator's most high profile executives have also been lobbying in recent months to push the deal through, but to no avail. In a statement released this morning, the EC said the takeover would have removed an "important competitor" in the UK, leaving only Vodafone and EE, recently acquired by BT, to challenge the merged entity. In addition, the tie-up would "likely have resulted in higher prices" for mobile services in the UK, while lessening choices for the consumer, and the Commission continued there would have also likely been a negative impact on quality of service for UK consumers, and "hampering the development of mobile network infrastructure in the UK". EC commissioner Margrethe Vestager, who has a growing reputation for taking a hard line on mergers that reduce competition, said the proposed deal "would have been bad for UK consumers and bad for the UK mobile sector". "The goal of EU merger control is to ensure that tie-ups do not weaken competition at the expense of consumers and businesses.... We had strong concerns that consumers would have had less choice in finding a mobile package that suits their needs and paid more than without the deal." The deal would have also "reduced the number of mobile operators effectively willing to host virtual operators", added the statement, leaving existing mobile virtual operators in a weaker position to negotiate position to obtain favorable wholesale access terms. In response, Hutchison said it was "deeply disappointed" by the decision to the deal, which was struck more than a year ago, adding that it will study the verdict in detail, "and will be considering our options, including the possibility of a legal challenge". "We strongly believe the merger would have brought major benefits to the UK," it added. The company said it will now focus on working with the commission on gaining clearance for its proposed merger of Wind and 3 Italy. In the end, EC said Hutchison's proposed remedies "did not resolve the structural problems created by the disruption to the current network sharing agreements in the UK", and were not sufficient to replace weakened competition in both the retail and wholesale mobile markets. Hutchison had said it would give access to a share of the merged entity's network capacity to one or two mobile virtual operators, it would divest O2's existing stake in the Tesco mobile joint venture, as well a strike a wholesale agreement to share network capacity with Virgin Media. For Telefonica, it leaves the company potentially searching for another buyer for its UK unit, and it may not have to look very far, with acquisitive cable group Liberty Global revealing this week it would consider a move for the unit. Speaking on an investor call, Liberty CEO Mike Fries said "it would be strange if we didn't evaluate that option", when asked if the company would bid for O2 UK, should the deal with Hutchison meet its expected end. "We look at all options in the marketplace," he added. The company currently provides mobile services in the UK through Virgin Media, with it renting capacity on EE's network, as part of a contract until 2018. EE, of course, is now owned by BT, which rivals Virgin Media in the internet and TV space. (May 11, 2016) mobileworldlive.com

France

Telecom Regulator ARCEP has announced that a total of 25 operators have submitted bids for 4G licenses in the French overseas territories of Guadeloupe, Martinique, French Guiana, Saint-Martin, Saint Barthelemy, Reunion

and Mayotte. The applicants were revealed as follows:

- Guadeloupe and Martinique: Dauphin Telecom, Digicel Antilles-Francaise Guyane, Free Mobile (Iliad Group), NomoTech, Orange Caraibe (Orange Group) and SFR Caraibe (Altice Group)
- French Guiana: Dauphin Telecom, Digicel, Free Mobile, NomoTech, Orange Caraibe and SFR Caraibe
- Saint-Martin and Saint-Barthelemy: Dauphin Telecom, Digicel, Free Mobile, Orange Caraibe and UTS Caraibes
- Reunion: Orange, SFR Reunion (Altice Group), Telco OI (Iliad Group and Hiridjee Group) and Zeop Mobile
- Mayotte: BJT Partners, Orange, SFR Mayotte (Altice Group) and Telco OI (Iliad Group and Hiridjee)

The regulator disclosed that it will now study the applications, with the available spectrum – in the 800MHz and 2600MHz bands (yet unallocated overseas), along with additional frequencies in the 900MHz, 1800MHz and 2100MHz bands – scheduled to be awarded in the autumn of 2016. ARCEP will issue four 4G concessions in each of the territories. (May 12, 2016) telegeography.com

Germany

The European Commission (EC) has opened an in-depth investigation into the Federal Network Agency's (FNA's) plan to allow Telekom Deutschland (TD) to upgrade its network with vectoring technology in areas close to its exchanges, which was approved last month. The EC says it has concerns about the potential impact of the proposal on the development of competition and on longer term incentives for investment in future-oriented networks. While recognizing that the FNA's proposal would lead to broadband speed gains in parts of Germany (of the six million households affected, roughly 1.4 million would receive download rates or above 50Mbps for the first time), the EC believes that the alternative access solutions for rivals offered by the German watchdog are not yet sufficient to ensure an appropriate safeguarding of competition. The investigation will assess whether solutions can be found which are better suited to protect competition and future investment, while still allowing for speed-enhancing network upgrades. The EC has three months to discuss the case with the FNA, in order to remove any elements giving rise to serious doubts as to compliance with EU law. The Commission may, at the end of the investigation period, either lift its reservations or issue an Article 7a Recommendation, which will require the FNA to amend or withdraw its draft measure. (May 11, 2016) telegeography.com

GSMA

Across the APAC region, mobile has emerged as the primary connectivity type for the majority of citizens accessing digital services. A new report by the GSMA underscores the role mobile connectivity is playing in building digital societies across the region and urges policymakers to support the development of digital ecosystems. The report encourages governments to adopt policies designed to promote rapid mobile network coverage expansion and service uptake, including an efficient allocation of spectrum. "Digital policy in Asia plays a crucial role in regional development, both in terms of helping define and promote forward-looking national digitization agendas, and in supporting a harmonized, cross-border approach to regional issues," GSMA head of Asia Alasdair Grant said. "With this report, we will be able to work even more closely with our members and regulatory partners to develop and implement policies that support national development objectives." The new report focuses on the digital society initiatives underway in seven Asian countries - Australia, Bangladesh, Indonesia, Japan, Pakistan, Singapore, and Thailand. As part of this analysis, each market is assessed on its levels of connectivity, digital citizenship, digital lifestyle and digital commerce. These markets are grouped into three categories reflecting the diverse nature of the region: Emerging digital societies (represented in the report by Bangladesh and Pakistan) - In these markets, digitization is primarily a tool for accelerating socioeconomic development and social inclusion. The priority is the provision of essential services in areas such as healthcare, education and financial services. Transition digital societies (represented by Thailand and Indonesia) - Digitalization in this category is focused on the personalization of services that facilitate engagement between individuals and institutions. There is also a need for digital services to tackle the social, infrastructural and environmental issues that arise as a result of rapid urbanization. Advanced digital societies (represented by Australia, Japan, and Singapore) - Having already achieved ubiquitous network access and capacity, markets in this category are currently focused on developing interconnected and interoperable digital technologies between sectors. These markets are also assuming a regional leadership role in defining standards and best practice in key areas such as the IoT. (May 4, 2016) telecomasia.net

Guatemala

Guatemala could see its long-awaited multi-band spectrum auction take place before the end of 2016 said Acisclo Valladares, the Presidential Commissioner for Competitiveness. The distribution of spectrum in the 2100MHz/1700MHz AWS range, as well as frequencies in the 700MHz 'digital dividend' band has been delayed by regulatory red-tape in recent years, but the abrupt departure of Eddy Padilla, head of the Superintendencia de Telecomunicaciones (SIT), last week is likely to give the government fresh impetus. He was replaced by Raul Solares. Discussing the situation, Mr. Valladares told El Periodico: 'The worst thing for the state is to have assets such as AWS frequencies unused.' (April 26, 2016) El Periodico

Guyana

Digicel Guyana is considering becoming a full service provider when the nation's telecoms markets are fully liberalized, and has unveiled plans to introduce fixed broadband and telephony services. The cellco's CEO, Kevin Kelly said: 'With liberalization, we will

have cheaper international calling, we'll have cheaper internet to home, we'll possibly look at landline, we will bring in a submarine fiber cable. We'll basically become a total telecommunication company.' Fixed line incumbent Guyana Telephone and Telegraph Company (GTT) currently holds a monopoly on the provision of fixed voice services and international voice and data transmission, but this is expected to change in the near future with the passing of long-awaited reforms. GTT has expressed concerns over potential imbalances in competition that may accompany Digicel's entry to the fixed market, however, warning that if Digicel was not required to provide services in low revenue areas, it would push to be released from its commitments to serve 'revenue unattractive areas.' GTT's chief commercial officer commented: 'For GTT it's very important to have a level playing field…because it cannot be the case that we have to provide landlines, for example, in Essequibo or somewhere in the interior where[as] the competitor can piggyback on the higher growth income [area] here in Georgetown and do the easy stuff first.'

(May 18, 2016) Demerara Waves

Guyana has taken a step closer to introducing high speed mobile broadband services, following announcements that the government is in the process of allocating licenses for '4G' services ahead of the approval of the long-awaited Telecommunications Bill. Justin Nedd, the CEO of Guyana Telephone and Telegraph (GTT) said that the company has received approval from the government for its 4G offering. A Digicel spokesperson, meanwhile, confirmed that it is ready to switch on its network and is expecting to receive its authorization shortly. The concessions reportedly include conditions pending the approval and implementation of the new Telecommunications Bill. The government is rushing to allow operators to introduce 3G and 4G services in time for the 50th anniversary of the nation's independence, when thousands of Guyanese expats are expected to return home for the celebrations. However, the process of allocating licenses has been held up for the last five years by delays in introducing the new Bill, leaving Guyana as one of the fewer than ten countries in the world without 3G or 4G services. (May 3, 2016) Demerara Waves

Guyana's long-delayed Telecommunications Bill is due to be presented to the National Assembly by the end of May this year, following months of consultations with mobile operators Guyana Telephone and Telegraph (GTT) and Digicel Guyana. The full contents of the current iteration of the bill have not been made public, although the government has confirmed that it will address the expansion of mobile coverage into rural areas. Previous versions of the bill have also looked to strengthen the powers of sector regulator the Public Utilities Commission (PUC), open the telecommunications markets to new players and end GTT's monopoly on fixed telephony and international voice and data transmission. Earlier this year, however, Minister of Public Telecommunications Catherine Hughes explained that the government was ensuring that industry stakeholders are satisfied with the legislation before it is presented to parliament. Given GTT's history of fiercely defending its monopoly rights, it seems unlikely that the operator would approve measures that would end its exclusivity. Indeed, it was threats of legal action from GTT's parent company over the termination of its monopoly rights that led the government to increase the involvement of GTT and Digicel in the drafting of the bill. The Telecommunications Bill has been in development since 2011 but has been derailed by several legal challenges, whilst changes of government and political turmoil have pushed the reforms back further still. The prolonged delays in implementing the much-needed reforms has halted Guyanese regulators from issuing new licenses, meaning that the country is one of the fewer than ten nations that still do not have access to 3G or 4G technologies. Others on that list include Tuvalu, Eritrea, Palestinian Territory, Cuba (a 3G platform is available, but only to roaming visitors), St Pierre & Miquelon and Wallis & Fortuna. (April 29, 2016) Demerara Waves

Hungary

Two applicants have been qualified by Hungary's National Media & Infocommunications Authority (NMHH) in the auction process for 3400MHz-3800MHz wireless broadband frequencies, namely cellco Vodafone Hungary and pay-TV/broadband operator DIGI Telecommunications, the regulator announced on its website. The authority added that it will undertake 'substantive examination' of the bids before announcing the results 'in a few weeks'. Winners will be entitled to use the frequencies until 2034. The NMHH points out that in addition to mobile broadband access services, the 3400MHz-3800MHz spectrum also supports wireless backhaul and high speed fixed-wireless access, while the auction is particularly aimed at meeting broadband demand in underserved areas and boosting available capacity in urban areas of intensive usage. DIGI, owned by Romanian cable group RCS&RDS, currently offers triple-play TV, internet and fixed telephony over its own HFC network, alongside mobile internet resale over the Telenor Hungary network, but it is in the process of entering the facilities-based 4G mobile operating sector via an 1800MHz LTE license won in September 2014.

(May 17, 2016) telegeography.com

India

State-owned telco Bharat Sanchar Nigam Ltd (BSNL) is open to allocating spectrum in the 2500MHz band to Google for its Project Loon, which plans to use helium balloons fitted with transmitters to provide connectivity in rural areas. The Economic Times writes that the American internet giant is close to getting approval for conducting a brief trial of the technology in either Andhra Pradesh or Maharashtra, after its previous proposal was rejected last year. Google had proposed a pilot of the scheme, but the plan was opposed by several ministries – including those covering civil aviation, telecommunications and defense – with one of the major sticking points being its request for spectrum in the 700MHz band. The current plan is expected to last just four days, and will be coordinated by the Department of Electronics and IT (DeitY). Circumventing

the issue of using the as-yet unallocated 700MHz band, BSNL has said that it is willing to make spectrum in the 2500MHz band available to Google for experimental use, and has a transparent pricing regime ready. 'We can easily spare 10MHz for LTE-based 4G services over the 2500MHz band,' BSNL Chairman and Director Anupam Shrivastava was quoted as saying, adding: 'We have had some initial discussions with Google. Selection of state is in the process currently [and] is expected to be finalized soon.' (May 25, 2016) telegeography.com

Indian cellco Bharti Airtel has completed its acquisition of spectrum in the 1800MHz band in six circles from Videocon Telecommunications Ltd (VTL). Airtel, India's largest mobile provider by subscribers, paid INR44.28 billion (USD653.42 million) for 2×5MHz blocks in Bihar, Gujarat, Haryana, Madhya Pradesh, Uttar Pradesh East and Uttar Pradesh West. The pair agreed the transaction in March this year, and confirmed that all necessary approvals had been received and all conditions had been met by 24 May. Previously, in November 2015 VTL had agreed to sell its airwaves in two of the circles (Gujarat and Uttar Pradesh West) to Idea Cellular for INR33.1 billion, but the deal fell through in March 2016.

(May 25, 2016) telegeography.com

India's upcoming frequency auction, which was scheduled to be held in July this year has been pushed back to September media reports citing communications minister Ravi Shankar Prasad. The tender is expected to garner revenues of INR5.6 trillion (US$82.68 billion) and will see the government auctioning off more than 2,000MHz of spectrum across seven frequencies – including the 700MHz band which will be made available for the first time. Mr. Prasad said: 'We have cleared spectrum trading and sharing. Therefore, issues regarding spectrum have been addressed. In the next two to three months 2,000MHz will be auctioned.' In January 2016 the Telecom Regulatory Authority of India (TRAI) published its recommendations on reserve prices for frequencies in the 700MHz, 800MHz, 900MHz, 1800MHz, 2100MHz, 2300MHz and 2500MHz bands for the spectrum auction, calling for the government to complete the spectrum harmonization process in the 1800MHz band, and to carry out a similar re-assignment exercise in the 800MHz range before proceeding with the tender. Subsequently, in April India's Department of Telecommunications (DoT) approved a decrease in spectrum usage charges (SUC) to 3% of annual gross revenues in an effort to attract bids.

(May 24, 2016) The Business Standard

India's much-discussed upcoming spectrum auction will likely get underway in late July at the earliest judging by comments made by the country's communications minister this week. "Issues regarding spectrum have been addressed," the government having cleared spectrum trading and sharing, Ravi Shankar Prasad said in a speech at the Telecom India event in New Delhi on Friday, according to a report in the Economic Times. "In the coming two to three months, 2,000 MHz of spectrum will be auctioned," Prasad said, according to the paper. That suggests a timeframe of late July to late August, which is later than the industry was expecting at the start of the year, when a May-June auction seemed likely. However, it is in line with recent reports on the subject; last month, the Economic Times reported that 2.1-GHz spectrum held by the Ministry of Defense could be put up for auction in July if it can be freed up in time, for example. According to the newspaper, the Indian government could expect to raise 5.6 trillion rupees (€74 billion) from the sale of spectrum in the 700 MHz, 800 MHz, 900 MHz, 1,800 MHz, 2.1 GHz, 2.3 GHz and 2.5 GHz bands. (May 5, 2016) totaltele.com

The Telecom Regulatory Authority of India (TRAI) has told the Supreme Court that it would reconsider rules imposed last year which require operators to provide financial compensation to customers for dropped calls, on the condition that cellcos instead offer customers an equal number of free calls as an alternative means of compensation. The Economic Times cites Attorney General Mukul Rohatgi as saying that Telenor already has such a policy in place, albeit with the caveat that the free calls can only be used for on-net calls. 'If the telcos agree that there will be no provisos of any kind and they are ready to give free calls for every call drop to the consumers, then we are open to looking into our regulations penalizing them,' Mr. Rohatgi added. The official explained that the watchdog had been left with 'no other option' but to penalize cellcos, as operators had refused every other arrangement for compensating customers, including offering free calls and re-crediting timing. The regulations, which came into effect from January 1, 2016, oblige providers to pay customers INR1 (US$0.015) for each dropped call to a maximum of INR3 per day. Industry bodies the Cellular Operators Association of India (COAI) and the Association of Unified Service Providers of India (AUSPI) challenged the rules, claiming that the TRAI does not have the authority to impose such requirements and warning that it could cost operators upwards of INR30 billion per month. After going through the lower courts, in March the matter was passed to the Supreme Court, which ordered the TRAI not to take any action against the nation's cellcos until it has ruled on the issue. For its part the TRAI has accused the nation's cellcos of failing to invest in their networks to maintain service quality, claiming that they are 'just interested in filling their coffers.' On the other hand, mobile providers have stated that the issue is not as widespread as the TRAI has suggested and that where call drops are a problem it is not the fault of the providers, but local authorities. The cellcos complained that the arbitrary sealing of towers in certain cities, most notably Delhi, is limiting its ability to meet quality of service (QoS) standards. (April 27, 2016) telegeography.com

Indonesia

The Ministry of Communications and Information Technology (MCIT, also known locally as KemenKominfo) has published a draft ministerial regulation governing the provision of content over the internet by over-the-top (OTT) providers. Before being put into effect, the regulation is being tested publicly until May 12, 2016. In brief, the draft requires that: the OTT operate in the form of a permanent establishment [but can be]

either foreign or local players; OTT players must register their business forms and activities to the Indonesian Telecommunications Regulatory Body (ITRB) no later than 30 working days prior to providing services in Indonesia by attaching the required documents; and, if the OTT is in the form of foreign direct investment (FDI) then they shall attach the permanent business license from the Investment Coordinating Board (BKPM). Furthermore, it is understood that the regulation will also require the OTT service provider 'to comply with the provisions of the legislation in the field of: prohibition of monopolistic practices and unfair business competition; trading; consumer protection; intellectual property rights; broadcasting; film; advertising; anti-terrorism; taxation; transportation and logistics; tourism and hospitality; finance; health; and / or regulations and other relevant legislation.' (May 7, 2016) IndoTelko

Ireland

In a statement released, the Department of Communication, Energy and Natural Resources (DCENR) has emphasized the Irish government's commitment to the implementation of the National Broadband Plan (NBP), noting that the procurement process to deliver the new network is now 'well underway'. Minister for Communications, Climate Change and Natural Resources, Denis Naughten, is cited as saying: 'The network will be expected to serve at least 30% of the premises in Ireland who cannot currently get access to high speed services. It will have to traverse approximately 100,000km of road network or 96% of the land area of Ireland to get to every home, every business and every school. It will be the most significant investment in rural Ireland since rural electrification,' adding: 'All second level schools now have access to 100Mbps broadband … There are however still 1,500 primary schools, and over 750,000 premises, mainly in rural Ireland, who still cannot get access to high speed broadband services.' Under responsibilities of the recently configured Department of Regional Development, Rural Affairs, Arts and the Gaeltacht, companies interested in deploying the NBP are expected to be shortlisted as bidders within the next month, with contracts to be signed by June 2017. Further, a national mobile phone and broadband workgroup is scheduled be established which will consider immediate measures to alleviate broadband and mobile phone service deficits across rural Ireland. (May 26, 2016) telegeography.com

Ireland's National Broadband Plan (NBP), which aims to deliver broadband access throughout the country with particular focus on rural connectivity, looks set to face delays as responsibility for its implementation has been moved to a different government department. The newly configured Department of Regional Development, Rural Affairs, Arts and the Gaeltacht is now responsible for the broadband strategy, taking over from the Department of Communications, Energy and Natural Resources (DCENR), though a government spokeswomen is cited as saying the delivery of the NBP remains a 'priority'. The move follows a recent announcement from the DCENR which claimed introduction of the NBP would be delayed by six months due to the 'complexities of the process.' Contracts for the plan's deployment are now expected to be awarded in 2017, with the network due to be ready in 2022, two years later than originally scheduled. In August 2012 the then Communications Minister Pat Rabbitte announced a new NBP, under which up to EUR175 million of state funding would be used to extend next generation high speed network access to the 30% of the population deemed non-viable for commercial operators to serve. A further EUR175 million (US$199 million) would be spent by operators to improve services nationwide. (May 12, 2016) The Irish Times

Jamaica

Jamaica is set to get a new mobile operator to challenge the incumbent duo Digicel and Flow. A report says that Symbiote Investments has paid USD20.8 million to acquire a wireless spectrum license which it will use to roll out a 4G LTE service under the 'Caricel' brand. The firm says it has already invested US$50 million and is looking to spend another US$50 million over the next three years. A spokesperson from Caricel told the Gleaner: 'We will start in the metropolitan region but we already have towers secured island-wide and will quickly move to full coverage of the entire island.' Services are expected to be launched within the next few weeks. Jamaica is home to over three million mobile users, with Digicel claiming around 2.2 million and Flow having around one million. (May 23, 2016) The Jamaica Gleaner

Finance Minister Audley Shaw says the country's Cabinet has approved the award of a license to a new mobile operator, though the applicant has not yet been named, the Jamaica Gleaner writes. Technology Minister Phillip Paulwell said in January that authorities were looking to improve competition in the market by introducing a new player; the sector is currently served by just two players, Digicel and Flow (formerly LIME), with the same two firms dominating the fixed line segment. It has not been revealed whether the new mobile player will be required to roll out its own infrastructure or if it will act as a virtual operator by piggybacking on the two existing networks. Jamaica was home to around three million cellular subscribers at the end of 2015. (May 5, 2016) telegeography.com

Kazakhstan

Iran's Deputy ICT Minister has said that the government is looking to boost internet connections in the country to a minimum 20Mbps within the next five years. Barat Ghanbari says that the scheme will be backed by an investment of USD15 billion, half of which will go to the state-owned Telecommunication Company of Iran (TCI). Ghanbari said that internet services in rural areas will be expanded via the deployment of 4G LTE mobile technology. For many years most residential internet connections in Iran were limited to a maximum speed of 128kbps, with the cap only lifted in September 2014. Meanwhile, TCI is to forge stronger ties with Kazakhtelecom, with the two telcos signing a memorandum of understanding (MoU) covering the development of new services and the opening of new

international traffic routes between the Middle East, Asia and Europe. The two countries intend to link their respective networks either via a direct trans-Caspian cable or overland through a neighboring country. (May 17, 2016) Mehr News Agency

Kazakhstan telecom subscribers rises 31.2 million in the end of March, reports telecompaper.com. The total increase by 7.1 percent year-on-year, and the mobile penetration rate rose from 167 percent to 176 percent. The total 2G/3G/4G base stations work in Kazakhstan are 27,862 , of which 58 percent support the GSM standard, 34 percent 3G and 8 percent LTE technology. (May 5, 2016) 3gca.org

Kyrgyzstan

The government of Kyrgyzstan has postponed the auction of 100% of its shares in Alfa Telekom (Megacom), the country's largest cellco by subscribers. Previously mooted for tender on 10 May 2016, the deadline for applications to participate in the auction has now been moved to 15 June, to reportedly allow potential investors more time to examine the company up for privatization. (May 13, 2016) Tazabek

The government of Kyrgyzstan will auction 100% of its shares in Alfa Telecom (Megacom) – the country's largest mobile operator by subscribers – on May 11, 2016, according to the country's Fund for State Property Management. The deadline for applications is May 10, while the bidders will be announced the same day, and the Fund notes a starting price for the tender has been set at KGS19 billion (US$781 million). In July 2014 the Kyrgyzstan state increased its shareholding in Megacom from 49% to 100%. Prior to this, in May 2010 a 49% stake in the company was transferred to the government after it was claimed that the cellco was owned by Maxim Bakiyev, the son of ousted President Kurmanbek Bakiyev. The remaining 51% stake remained under investigation, with a Bishkek court subsequently ruling that the shares also be handed to the state. (April 29, 2016) telegeography.com

Liberia

The President Ellen Johnson-Sirleaf has reportedly given the thumbs down to Liberia Telecommunications Corporation (LIBTELCO's) proposed takeover of ailing Liberian mobile operator Novafone (formerly Comium Liberia). According to reports from multiple sources that the President has 'rejected the deal in its entirety, declaring to aides that it is not in Liberia's best interest', effectively killing LIBTELCO's plan stone dead. Indeed, one source goes as far as to claim that Ms. Johnson-Sirleaf has instructed her acting finance minister James Kollie 'to immediately terminate all negotiations regarding the Novafone deal'. It is unclear what led the Liberian president to scupper the deal, although the move comes after the Liberian Revenue Authority shut the operator down last Thursday over an alleged non-payment of taxes worth around US$1.3 million – accrued between 2012 and 2014. Last week the managing director of Liberian state owned fixed line incumbent LIBTELCO, Sebastian Muah, confirmed that his company had agreed a deal to acquire 100% of Novafone for around US$10 million. In a statement at the time he said: 'The acquisition of 100% of the shares in Novafone means LIBTELCO can do what it needs to foster its commercialization and strategies; and it means Novafone will continue to run, but with a new management team and direction.' He went on to point out that Novafone was considered to be a 'competitive asset' that would allow his company to enter the mobile space with national coverage using a core network that has a viable long term lifespan. Muah said that LIBTELCO would invest upwards of US$5 million to build 100 cell sites on the Novafone network, suggesting that it would take up to two years to complete the full integration of the cellco. (May 9, 2016) Online portal FrontPageAfrica

Madagascar

Madagascar's campaign for SIM identification ended on 30 April, with any SIMs not yet registered being deactivated as of May 1. The country's Agency for Regulation of Technology and Telecommunication (ARTEC, formerly OMERT) implemented the SIM registration campaign in early March 2016, and will enforce the move. As per regulations (Article 5 of Order No. 2471/2016), subscribers have 90 days from SIM deactivation to provide identification details in order to retain their mobile number; otherwise the mobile line will be cancelled permanently. (May 6, 2016) Agence Ecofin

Malta

Tunisie Telecom (TT) has been selected as the preferred bidder by the Maltese telco GO, which was put up for sale last year. The Tunisian firm beat the only rival bidder – Batelco of Bahrain – with an offer of EUR2.87 (US$3.25) per share for GO's entire issued share capital, according to a report. GO is 60% owned by Emirates International Telecommunications (EIT), which is itself, part of the Dubai Holdings Group, while the remaining 40% is distributed, with shares listed on the Malta and London stock exchanges. GO and TT already share an ownership link, as EIT is a 35% shareholder in the Tunisian operator, with the other 65% in state hands. (May 24, 2016) The Times of Malta

Myanmar

Qatari-owned cellco Ooredoo has announced plans to launch 4G services in Yangon and Mandalay by the end of May, but a wider launch will require the company to secure more spectrum from the regulator, media reports, citing Ooredoo Myanmar CEO Rene Meza. As part of its original concession, Ooredoo was granted the option to purchase additional spectrum for a fee and the cellco applied for the additional airwaves several months ago. 'That will give us enough room for the 4G launch,' the official explained, adding: 'To allow customers to get access to 4G services [throughout Myanmar], obviously we need additional spectrum.' The Ministry of Transport and Communications (MCIT, recently changed from the Ministry of Communications

and Information Technology) is due to auction off the 2600MHz later this year, with 1800MHz airwaves scheduled to go on sale in Q1 2017, or nine months after the 2600MHz tender. Until the spectrum becomes available, Ooredoo will use the 900MHz and 2100MHz bands for its 4G services. (May 12, 2016) The Myanmar Times

New Zealand

The government of New Zealand says that 1.2 million premises are now able to access high speed internet services under its two network development projects. The Ultra Fast Broadband (UFB) project uses fiber technology to offer connectivity to 921,000 households, business and public sector facilities such as schools and hospitals, largely in urban areas, while the parallel Rural Broadband Initiative (RBI) utilizes a mix of fixed and wireless technologies to provide access to more than 285,000 rural premises. Uptake on the UFB scheme has reached 21.3%, or almost 200,000 subscribers, while RBI uptake stands at 37.3%, or around 106,000 subscriptions. (May 11, 2016) telegeography.com

Nigeria

The Nigerian Communications Commission (NCC) confirmed there was only one qualified bidder for the country's 2.6GHz spectrum auction, reported to be market leader MTN. The auction will no longer take place and the sole bidder will pay $96 million for the spectrum it was seeking. Leadership said the bidder is MTN Nigeria, which made a bid "to support its broadband program," although a company official told the newspaper he was not aware of this development because it had not heard from NCC. The regulator said the qualified bidder expressed an interest to bid for six of the 14 lots on offer, at a reserve price of $16 million per slot, and paid the bid deposit as specified by the information memorandum. There is now no need to hold an auction as the memorandum states that "if the aggregate demand from approved bidders is less than, or equal to the number of lots on offer, the commission will provisionally award the license to the party/parties at the reserve price." The NCC is now undertaking a due diligence exercise and will issue a license for the cumulative 30MHz in the 2.6GHz frequency, it said in a statement. In December, it was reported that Nigeria's four biggest operators – MTN, Airtel, Etisalat and Globacom – will commercially roll-out 4G LTE networks by 2017. A month prior to that MTN's operating license for the country's 900MHz and 1.8GHz frequency bands was extended from February 2016 to August 2021 for a fee of $94 million. In addition to its digital mobile license, MTN holds a unified access license and a 3G spectrum license. Earlier this week, discussions between Nigeria and MTN regarding a $3.9 billion were suspended until a House of Representatives committee concludes its investigation. (May 24, 2016) mobileworldlive.com

Discussion between Nigeria and the country's top operator MTN regarding a $3.9 billion fine has been suspended until a House of Representatives committee concludes its investigation into the penalty, Bloomberg reported. Victor Oluwadamilare, spokesman for Nigeria's ministry of communications, said lawmakers "have set up a committee to investigate the MTN saga and they are still on it," adding that "until they are through with it, nothing can be done." Back in March, MTN proposed to pay $1.5 billion of the fine, which originally stood at $5.2 billion (before being reduced to $3.9 billion) and is related to the company's failure to cut off unregistered SIM cards from its network in the country, amid terrorism concerns. It was issued by the Nigerian Communications Commission (NCC) in October last year. Oluwadamilare said the federal government, the NCC and the ministry of communications "can do nothing" about the case until the committee completes its investigation. According to him, "there's no point dealing with a particular organization from different fronts. It would be counter-productive." MTN's executive chairman Phuthuma Nhleko, who agreed to a six-month contract in November following the resignation of CEO Sifiso Dabengwa over the massive fine, was due to leave on May 9 but is sticking around as the operator deals with the penalty issue and looks for a new CEO. (May 23, 2016) Bloomberg

Ahead of this month's frequency spectrum auction in the 2.6GHz band, the Nigerian Communications Commission (NCC) has said that it also expects foreign firms to participate in the auctioning processes. While debunking claims that the commission wanted to use the auction, which is slated for May 16, to rake in money for the Federal Government, the telecoms regulator said the success of the exercise holds much more for Nigeria's broadband penetration target. Indeed, the successful auction of the 2.6GHz spectrum frequency is expected to fetch the Federal Government about N44 billion ($224 million) from the 14 slots that would be offered for auction. Speaking at an interactive session with the media on the proposed '2.6GHz Licence Auction' in Lagos yesterday, Director, Spectrum Administration at NCC, Austine Nwaulune, while making reference to the Information Memorandum (IM) on the auction, said applicants in the allocation process would not be required as a pre-qualification criterion to hold any telecommunications operational licence in Nigeria. NCC also said that licensed operators participating in the process must fulfil all existing obligations to the commission, including payments of Annual Operating Levy (AOL); Spectrum and National Numbering Plan fees prior to pre-qualification. On the importance of the 2.6GHz spectrum to Nigeria, Nwaulune said that about 108 networks across the globe have been rolled out on the frequency, stressing that countries, including Ghana, United Kingdom (UK), United States (U.S.), among others, currently operate on it and "as such, Nigeria cannot afford to be left out." (May 10, 2016) africatelecomit.com

The Nigerian Communications Commission (NCC) has invited applications from parties interested in acquiring regional spectrum in the 3.5GHz band. The regulator is offering up 25MHz of time division duplex (TDD) spectrum in each of the following 26 states: Adamawa, Katsina, Akwa-Ibom, Kebbi, Bauchi, Kogi, Bayelsa, Kwara, Benue, Niger, Borno, Ogun, Cross Rivers, Ondo, Ekiti, Osun, Gombe, Plateau, Jigawa, Zamfara, Kaduna,

Taraba, Kano, Yobe, Nassaarwa and Sokoto. Frequency licenses will be auctioned off on a state-by-state basis. Interested parties have been given a deadline of May 13, 2016 to submit their applications for the concessions. (May 1, 2016) telegeography.com

Norway

Revenues generated by Norway's broadband and mobile sectors increased in 2015, according to data released by the Norwegian Communications Authority (NKOM), with the nation's total telecoms turnover climbing to NOK34.620 billion (US$4.29 billion), up from NOK33.455 billion a year earlier. Revenues from mobile services accounted for more than half of the total, standing at NOK20.129 billion, a year-on-year increase of 3.5%, while broadband turnover rose by 6.7% to reach NOK8.839 billion. By comparison, revenues from fixed voice services amounted to NOK3.081 billion, a drop of more than 12% against the NOK3.510 billion reported for 2014. In terms of accesses, gains were only reported in the broadband sector, where the total increased to 2.042 million, up 3.3% y-o-y. Notably, the increase was driven by the uptake of fiber-based services, with the number of connections standing at 679,005 at the end of 2015, having risen by 16.7% against the 581,899 recorded at end-2014. In the mobile arena, meanwhile, subscriptions declined marginally (-0.4%) to 5.715 million, with a 91,000 rise in the number of post-paid accesses failing to offset a 115,000 drop in pre-paid subscribers. Standalone mobile broadband subscriptions totaled 485,691 at the end of 2015, representing a 9.2% drop from 535,015 a year earlier. Fixed voice services also saw declines in the year under review, with the total (PSTN and VoIP combined) falling under the one million mark to stand at 944,510 at end-2015, down from 1.081 million a year earlier. (May 20, 2016) telegeography.com

Peru

Ministry of Transport and Communication (MTC) has awarded LTE-compatible spectrum in the 700MHz band to Entel, Claro and Movistar, the Agency for the Promotion of Private Investment (Agencia de Promocion de la Inversion Privada, ProInversion) has announced. Each of the trio was awarded a 2×15MHz spectrum block, valid for 20 years. Chilean-owned Entel was awarded Block A with a bid of USD290.21 million, just ahead of the reserve price of USD284.70 million, whilst Block B was won by Claro with a bid of USD306.00 million and Block C went to Movistar for USD315.01 million. Vietnamese-backed newcomer Bitel also submitted an offer for the airwaves, but failed to secure any spectrum. Under the terms of the new concessions, the licensees are required to roll out LTE services to 195 unserved or underserved towns. According to sector watchdog the Supervisory Agency for Private Investment in Telecommunications (Organismo Supervisor de Inversion Privada en Telecommuniciones, Osiptel) the winners must cover 15 towns within the first year, a further 129 in the second year and 51 more in the third. (May 27, 2016) telegeography.com

The Agency for the Promotion of Private Investment (ProInversion) has set a launch date of 26 May for the auction of 700MHz mobile frequencies. The agency has also modified the terms and conditions of the tender to eliminate spectrum caps. Three 2×15MHz blocks of spectrum are available in the band, with a reserve price of US$248.7 million each. (May 6, 2016) TeleSemana

Philippine

The President of the Philippines, Benigno S. Aquino III, has now signed the bill to create the Department of Information and Communications Technology (DICT), ending the long wait for a new regulator to oversee the development of the country's ICT sector. The DICT Act of 2015, also known as Republic Act (RA) No. 10844, is structured to be 'the primary policy, planning, coordinating, implementing and administrative entity of the Executive branch of the government that will plan, develop and promote the national ICT development agenda'. Its far-reaching mandate extends to the establishment of 'a free internet service that can be accessed in government offices and public areas; assisting in the dissemination of vital information essential to disaster risk reduction through the use of ICT; and ensuring and protecting the rights and welfare of consumers and business users to privacy, security and confidentiality in matters relating to ICT, among others'. Headed up by a new secretary – with at least seven years of expertise in ICT, cyber security or e-Commerce development, and appointed by the president – the DICT effectively replaces a number of agencies whose functions and responsibilities will be absorbed into the new body, namely: the Information and Communications Technology Office (ICTO); National Computer Center (NCC); National Computer Institute (NCI); Telecommunications Office (TELOF); National Telecommunications Training Institute (NTTI); and all operating units of the Department of Transportation and Communications (DOTC) with functions and responsibilities dealing with communications. Meanwhile, the National Telecommunications Commission (NTC), National Privacy Commission, and the Cybercrime Investigation and Coordination Center (CICC), will be retained, but will now be attached to DICT to act as agencies for policy and program coordination, it says. The law allows for a six-month transition to implement the necessary changes, which also include the setting up of a Department of Transportation, instead of the former DOTC. (May 25, 2016) The Manila Bulletin

Russia

Russian investment fund RFPI is mulling a minority stake purchase in the country's dominant fixed network operator Rostelecom, in partnership with Arab investors, media reports citing Russian newspaper Kommersant. The roughly 15% stake in Rostelecom is currently held by Mobitel, a subsidiary of state-controlled Rostelecom itself, and is valued at over RUB41 billion (US$631 million), a source familiar with the matter was quoted as saying. Arab companies Mubadala Development Company and Kuwait Investment

Authority cooperate with Rostelecom on other projects, but the firms declined to comment on the report. RFPI, in cooperation with Deutsche Bank, previously acquired a 2.7% stake in Rostelecom for USD236 million in 2013 but sold the shares back to Rostelecom in 2014-2015. The Russian Federation (via the Federal Agency for State Property Management) holds a 45.04% equity stake (48.71% voting share) in Rostelecom, while holding company Mobitel owns a 16.24% equity (15.06% voting) stake. The only other 2%-plus share is held by Vnesheconombank (3.96% equity/4.29% voting), with the remaining 34.76% of share capital in free float or held by other, unspecified, shareholders. (May 13, 2016) Telecompaper

Senegal

The director of Senegal's Regulation Authority of Post and Telecoms (ARTP), has given the country's telecoms operators – Orange Senegal, Tigo Senegal and Sudatel Senegal (Expresso) – six months to complete a mandatory identification of all mobile telecoms subscribers. Starting May 10, 2016, industry players have six months to comply he said, noting that to help ensure the success of the verification process for identifying users, all operators will be given access to government-held national identity files. The process to complete SIM identification has so far not run to plan. In June 2013 the Ministry of Communication, Telecommunications and Digital Economy launched a scheme to identify all mobile subscribers in the country. The project, managed by the ARTP, is being carried out under recommendations laid out by the International Telecommunication Union (ITU) – adopted in 2007 – that require domestic cellcos to identify who is using their mobile services in order to provide more reliable statistics on the market improve security and tackle the grey market for phones. More than eight years after adopting the decree, however, Senegal's wireless service providers have so far failed to complete the mobile identification scheme, despite the trio deploying teams across the country to help carry out the process. (May 19, 2016) telegeography.com

Singapore

Singapore's soon-to-be-formed Government Technology Agency (GovTech) will continue to partner the ICT industry and invest in technologies such as data analytics, ICT infrastructure, and platform-as-a-service to develop citizen-centric services. GovTech, which will be established at the end of this year, will replace the Infocomm Development Agency of Singapore (IDA) and aim to lead technological transformation in government. The agency is expected to continue to partner the industry to co-create such digital solutions and will be calling for a projected S$2.82 billion ($2.04 billion) of ICT tenders across fiscal year 2016. These ICT tenders will comprise mainly infrastructure and ICT security bulk contracts due to some multi-year contracts ending in FY16, as well as contracts relating to agency-specific systems. Last year, SMEs accounted for more than half of the total contracted value of ICT tenders. One key focus for government procurement this year will be to enhance ICT infrastructure to better support the data and digital services needs of a Digital Government in a Smart Nation. For example, increased data center virtualization will allow the government to modernize its hosting of ICT applications and ensure faster time to production for new digital services. Wi-Fi will be extended to more areas within government schools to support smart learning. The government will also continue to invest in its cybersecurity efforts, with a bulk tender for IT security services to be called in this fiscal year. "We want to empower Singapore with possibilities through technology. To do that, investment in infrastructure is necessary so that innovative citizen-centric services can be built and enhanced on a strong foundation," IDA managing director Jacqueline Poh said. (May 24, 2016) telecomasia.net

South Africa

South African telecoms operator Neotel has reportedly attracted two takeover bids – from submarine cable provider Seacom and Econet Wireless, the parent of pan-African fiber-optic provider Liquid Telecom – following the collapse of its merger talks with market leader Vodacom earlier this year. In late February the High Court in Pretoria ruled against Vodacom's acquisition of Neotel's spectrum and licenses, and subsequently the two sides decided to call off the takeover. Neotel's parent Tata Communications of India subsequently revealed in March that it was looking for a new buyer for its South African subsidiary, with CEO Vinod Kumar disclosing: 'We were in talks with Vodacom, as there was no other potential buyer with which we were committed … However, many market participants have expressed an interest and now the time has come for us to explore these options.' In related news, a number of companies are believed to have expressed an interest in acquiring independent South African mobile service provider GloCell, with Allied International Investments (part of Allied Mobile group of companies) reportedly close to securing a controlling stake of roughly 75% of the GloCell's equity, TechCentral writes citing two well-placed sources with knowledge of the situation. GloCell – which is a major supplier of pre-paid mobile products – recently acquired Cell C's subscriber base from Altron subsidiary Altech Autopage. Allied Mobile, meanwhile, is a shareholder in Virgin Mobile South Africa. In a press release, GloCell said that it is in 'ongoing discussions with various companies on growing its business', adding that it will 'share news once there are concrete developments.' (May 13, 2016) MyBroadband

South Korea

South Korea's spectrum auction has come and gone, with the three major players all securing additional airwaves, but the expected fierce competition didn't materialize, with two of three blocks going for the reserve prices. The country's Ministry of Science, ICT and Future Planning (MSIP) said the auction raised KRW2.11 trillion ($1.82 billion), short of the forecast of KRW2.5 trillion. Despite the blocks in 1.8GHz and 2.1GHz bands selling at the reserve price, the shortfall was mainly due to 40MHz

in the 700MHz band going unsold. With the 2x20MHz block not attracting any bidders due to the high base price of KRW762 billion, the regulator seems to have miscalculated demand for the highly-efficient band from operators, which don't have coverage issues. The lack of interest, an analyst said, shows that when regulators set unjustified prices, they risk limiting the availability of spectrum and having to re-auction airwaves for an additional cost, and should be an example of other countries, such as India, when they set auction prices. LG Uplus' winning bid for the 20MHz of 2.1GHz spectrum went for the reserve price of KRW381.6 billion, because of the way the regulator structured the reassignment of the spectrum in that band, which expires in December. SK Telecom (SKT) and KT knew they would have to pay the final auction price (per megahertz) for their existing 40MHz in the 2.1GHz band, which MSIP will reallocate back to the two operators, so they didn't participate in that auction, allowing LG Uplus to win the five-year license uncontested. SKT surrendered the 20MHz for the auction. KT went home with 20MHz in the 1.8GHz band for KRW451 billion, also the reserve price. SKT won two blocks of 60MHz in the 2.6GHz band for KRW1.27 trillion, which was 29 per cent, or KRW287 billion, higher than the minimum price. Those spectrum blocks have ten-year licenses. As a result of the auctions and the renewal of their existing 2.1GHz blocks later this year, Moody's estimates that SKT's and KT's adjusted debt/EBITDA will increase slightly. With 25 per cent of the bid payments due upfront, and the remaining 75 per cent paid annually over the ten-year license period, Moody's expects the payments to be funded by the companies' existing cash holdings. It forecasts SKT's financial leverage at 1.9x in 2016 without the new spectrum payment and after factoring in an upcoming investment of around KRW700 billion in CJ Hellovision, Korea's largest cable TV and second-largest pay-TV operator. With the new spectrum obligations, its adjusted debt/EBITDA will rise to around 2.1x. Moody's said KT is better positioned to absorb the impact of higher leverage since it reduced its leverage to 2.0x in 2015 from 2.5x in 2014, following last year's sale of KT Rental and KT Capital. After the spectrum-related debt is incorporated, its adjusted leverage will rise to 2.1x. (May 6, 2016) mobileworldlive.com

South Korea's latest multi-band spectrum auction has drawn to a close, raising 2.11 trillion won (€1.6 billion). The process fell short of expectations due to a lack of serious competitive bidding and the fact that one of the available spectrum blocks was left unsold. The biggest spender in the process was SK Telecom, which picked up both blocks of 2.6-GHz frequencies, agreeing to pay KRW1.28 trillion (€964 million). KT secured the 1800-MHz airwaves at the KRW451.3 billion reserve price, while LG Uplus agreed to pay the minimum price of KRW381.6 billion for the available 2.1-GHz spectrum. A package of 700-MHz airwaves, priced at KRW762 billion, failed to attract a buyer. South Korea's Ministry of Science, ICT and Future Planning (MSIP) revealed the results in a local language statement on Monday. The reserve prices attached to the spectrum show the state expected to generate upwards of KRW2.58 trillion from the sale. The ministry said the auction was carried out smoothly and without excess competition. As a result, each operator has a foundation on which to proceed with network investments and to support advanced services and to accommodate growing data traffic, it said. (May 3, 2016) totaltele.com

Sweden

National Post and Telecom Agency (PTS) has issued proposals to change the national numbering plan to fully support the utilization of geographical (fixed) telephone numbers in other area codes as well as in mobile networks. The regulator's announcement said that there is an increasing demand for the use of more flexible telephone numbers, for example, to move a fixed geographical number to another area code or to use the geographical number in the mobile network. This type of service exists today but is not permissible in Sweden on the basis of the numbering plan and license conditions. PTS identified in its strategy for telephony numbering (2014) these changes as being possible to implement in the short term (2017 onwards). The Agency also found that the changes are not expected to create problems such as potential complications for emergency calls, number portability and additional services such as SMS and MMS. The statement added that: 'In the short term, PTS procedures for the allocation of geographic numbers remain unchanged. A major change such as to completely remove the current area codes, can become relevant only in the longer term (2025 onwards).' Market participants have until June 15, 2016 to respond to the PTS' latest proposals. (May 20, 2016) telegeography.com

Tanzania

President of Tanzania John Magufuli has dissolved the Tanzania Communications Regulatory Authority (TCRA) board and suspended its Director General, Dr Ally Yahya Simba, for failing to implement the Telecommunications Traffic Monitoring System (TTMS. The decision followed a meeting involving the Communications Ministry, the Ministry of Finance & Planning and Tanzania's anti-corruption bureau (PCCB) which concluded that the failure to implement the TTMS system was costing the government around TZS400 billion (USD179 million) in lost telecoms revenues per year. President Magufuli also instructed ICT Minister Makame Mbarawa to appoint an Acting Director General for the TCRA immediately, and urged the relevant authorities to ensure that the delayed local calls revenue collection system could commence operations as soon as possible. The President stressed: 'Make sure that you take action immediately. I want us to properly collect revenue. I will not hesitate to take appropriate action against anyone who will hinder the process.' (April 29, 2016)) DailyNews.co.tz

Thailand

Sole bidder AIS won Thailand's 4G re-auction, picking up 900-MHz spectrum for the reserve price of 75.65 billion baht (€1.93 billion). With no other participants, the operator only had to match the winning bid made by Jas Mobile when the frequencies were first auctioned in

December 2015. Jas Mobile later forfeited the spectrum after missing March's payment deadline. "We believe the 900-MHz frequency will yield benefits to users as well as contribute to the long-term growth of Thailand's digital infrastructure," said Somchai Lertsutiwong, CEO of AIS, in a statement. "Together with the 2100-MHz and 1800-MHz frequencies that the company already has in hand, the AIS network has become stronger with higher quality, resulting in the ultimate benefits for our customers," he said. "At the same time, investors can rest assured that this investment was made based on rational decision-making that took into account the overall growth in popularity of digital services among Thai people," he added. According to a Bangkok Post report, Thailand's telecom watchdog, the National Broadcasting and Telecommunications Commission (NBTC), will issue the 4G license within two days of receiving the first payment, which is due within 90 days. If like previous 900-MHz winner Jas Mobile, AIS fails to pay up, it will lose its deposit of THB3.78 billion and will have to pay damages of at least THB11.35 billion. (May 27, 2016) totaltele.com

Government insists it will reallocate broadcaster MCOT's unused 2600MHz frequencies for 4G wireless internet services by the middle of next year, the Bangkok Post reports. The 60MHz block of spectrum will be allocated through auctions by the National Broadcasting and Telecommunications Commission (NBTC) by mid-2017, said Deputy Prime Minister Prajin Juntong. The state-run broadcaster will receive financial compensation from the state in exchange for returning the 60MHz bandwidth; MCOT holds a total of 144MHz in the 2600MHz range, allocated to provide pay-TV services. (May 24, 2016) telegeography.com

Thai quadruple-play operator True Corp has decided not to participate in the upcoming 900MHz 4G license auction scheduled for May 27. Rival DTAC previously said it would not take part in the contest, meaning that mobile market leader AIS will be the sole applicant for the 2×10MHz concession, which was left vacant after Jasmine failed to pay for its spectrum won at auction in December. True had already paid for the other 900MHz block auctioned. True's letter to the Securities Exchange Commission said that following the board's meeting on 16 May, True has decided not to participate in the auction as it has enough high frequency spectrum for capacity (1800MHz and 2100MHz) and low frequency spectrum for coverage (850MHz via its partnership with CAT and 900MHz directly) to meet demand. A few days earlier at a panel organized by Thailand's IT Press Club, NBTC Secretary General Takorn Tantasit stated that AIS had decided to participate in the auction. Meanwhile, it has also been confirmed that a mooted 900MHz mobile network rental agreement between AIS and True will not happen, as the rivals could not agree on a compromise. AIS had been looking at ways to continue serving remaining 2G-only 900MHz device owners in the event of losing direct access to 900MHz frequencies. (May 17, 2016) TelecomAsia

Thirty Four regional Thai cable TV network operators have submitted a joint application for broadband internet operating licenses. The National Broadcasting & Telecommunications Commission (NBTC) is considering the award of three-year licenses to qualified applicants, with a decision due in 30 days. The 34 pay-TV operators hail from provinces across the country such as Phetchabun, Chon Buri and Ubon Ratchathani, confirmed Varin Cholhan, vice president of the Cable Thai Association and managing director of Digital Cable of Phetchabun, who added that of the 350 association members, around 100 are equipped to provide broadband internet but currently use their fiber-optic networks solely for broadcasting. He continued: 'Each [of the 34 applicants] is expected to launch the broadband internet service within five months after obtaining the license. They're expected to offer a monthly service fee of THB590 (US$16.75), the same as the major players.' The Nation's report added that the small cablecos are seeking new revenue streams amid flat growth of their core TV services, and are aiming for 30% of their CATV subscribers to sign up to broadband under a breakeven target timeframe of two years. They plan to lease additional fibre transmission capacity from large wholesale telecoms providers including CAT Telecom and United Information Highway (UIH). (May 10, 2016) The Nation

Togo

Togo's Minister of Posts & Digital Economy, Cina Lawson, has said that access to mobile broadband internet services should no longer be 'a luxury product', available to only a few, and called on the country's two network operators – 2015 Togo Cellulaire (Togocel) and Moov Togo – to rapidly extend 3G service coverage and provide the highest data speeds possible to consumers. In a ministry session on April 30, Ms. Lawson confirmed that the domestic mobile market expanded by a net 1.28 million users in 2015, and with Smartphone take-up on the increase, demand for broadband is set to 'explode' in the next two to three years – but only if prices are reduced to make handsets affordable to the average man in the street. According to the ministry-led research, Togo was home to a total of 4,657,321 mobile users at end-2015, a cellular penetration rate of 66.78%. In February this year Ms. Lawson went on record as saying that the government hopes to kick off the bidding process for 4G mobile licenses in 2016, with the concessions including rights to offer 2G, 3G and 4G services. The process of issuing 4G concessions to domestic MNOs would be dependent on 'the enthusiasm of investors to trade in our market' and demand for 4G in Togo. The minister launched a study into 4G licensing in November 2015. In February 2015 Togocel, the mobile arm of fixed line incumbent Togo Telecom, announced plans to launch the tiny African nation's first 4G mobile network and roll out mobile banking before the year end. The launch never materialized, though, and critics argued that, with the cellco's current 3G network being inadequate at best, efforts should be made to improve that before even considering 4G. Attempts to introduce a third player to the market in 2014 also came to nothing. (May 3, 2016) Agence Ecofin

United Kingdom

The European Commission (EC) has ruled that the UK's National Broadband Scheme for 2016-2020, which aims to connect as many homes and businesses as possible throughout the UK to high speed broadband, complies with EU state aid rules. This decision comes just over one month after the UK notified the scheme to the Commission on 21 April 2016. In a press release confirming the development, the EC noted that the National Broadband Scheme plans to increase coverage of high speed broadband in the UK by deploying infrastructure capable of speeds of more than 30Mbps to as many premises as possible. The EC's state aid assessment aims to ensure that public funding does not take the place of private investment, while making sure that other service providers can use the publicly funded infrastructure on a non-discriminatory basis. The Commission said it had worked constructively with UK authorities, and noted that the UK can fully fund the investment to roll out next generation access (NGA) broadband in areas where no such infrastructure exists and where no private operator is willing to invest without state aid in the next three years. To further ensure that public investment does not crowd out private funding, detailed mapping and public consultation exercises will be carried out with interested private operators. Aid, meanwhile, will be awarded by way of tenders compliant with EU public procurement rules, respecting the principles of technological neutrality and also facilitating bids by smaller operators. Commenting on the matter, European Commissioner for Competition Margrethe Vestager said: 'Today's decision endorses UK plans to support the rollout of high speed broadband infrastructure – it aims to bring faster internet to UK consumers and businesses in line with EU state aid rules.' (May 27, 2016) telegeography.com

The UK Government, led by the National Infrastructure Commission, has published an 8-week consultation on the infrastructure requirements for the deployment and development of 5G in the UK. The consultation closes on July 11. In March, the Chancellor asked the Commission to consider what the UK needs to do to become a world leader in 5G deployment, and to ensure that the UK can take early advantage of the potential applications of 5G services. The Commission will report back to the government with its assessment and recommendations by end-2016. These will support the government's 5G strategy, which will be announced in spring 2017. (May 20, 2016) broadband4europe.com

OFCOM has proposed opening up more spectrum in the 5 GHz band for WiFi, a move that would bring the U.K. into line with other markets, including the U.S. The U.K. telecoms regulator issued a consultation paper proposing the use of two additional 80-MHz channels for WiFi within the 5-GHz band. That would bring the total available in that band to six channels. "People are placing greater demands on their broadband, so we need to ensure they aren't let down by their wireless connection," said OFCOM's group director of spectrum Philip Marnick, in a statement. "We also want to close the gap between advertised speeds and the wireless performance that people and businesses actually receive. So we're exploring ways to open up more airwaves for WiFi," he added. As it stands, the 2.4 GHz band is most commonly used for WiFi in the U.K., specifically 2400 MHz-2483.5 MHz, but 5-GHz WiFi is growing in popularity. The 5-GHz band is significantly less congested than the 2.4 GHz band. The consultation focuses specifically on the 5725 MHz-5850 MHz sub-band, which is used for WiFi in a number of countries, but not in Europe, OFCOM said. Opening up those additional 125 MHz of frequencies would, when combined with the existing 5-GHz WiFi spectrum, enable the creation of either two new 80-MHz channels or a single 160-MHz channel, it explained. The additional channels will "help address consumers' demand for high data rate applications," OFCOM said. "It will also help avoid congestion." The regulator confirmed that any move to open up the aforementioned spectrum for WiFi would also include ensuring "the appropriate protection" for other users of the band, including satellite service providers. It said early results from technical studies suggest that sharing with other users is feasible. OFCOM added that it is able to open up the 5725 MHz-5850 MHz sub-band without waiting for wider international developments, such as the outcome of the 2019 World Radiocommunication Conference (WRC-19). Interested parties have until 22 July to respond to the consultation. (May 13, 2016) totaltele.com

United States

The U.S. Federal Communications Commission (FCC) this week agreed rules paving the way for allocating US$2 billion (€1.79 billion) of public money to fund rural broadband deployments. Last year, $9 billion was allotted to the country's biggest telcos under phase two of the Connect America Fund (CAF), but that still left some parts of the country without adequate broadband coverage. As a result, the FCC has earmarked another $2 billion and invited smaller players to bid for funding with the aim of extending broadband networks to areas where deployment costs are inordinately high. The FCC has set out four tiers of service that it deems eligible for funding. These range from an 'entry-level' service of 10 Mbps downlink, 1 Mbps uplink, plus a 150 GB per month data allowance, right up to a high-end service that offers 1 Gbps downlink, 500 Mbps uplink, plus unlimited data. As well as pledging to meet one of the four service-level standards, telcos must also commit to building 40% of the network within three years of receiving authorization, rising to 60% after four years, 80% after five years, and 100% after six years. Progress reports must also be submitted to the FCC so it can monitor deployments. "We welcome the commission's progress towards conducting an auction to provide funding for the delivery of broadband service in rural areas," said Jon Banks, SVP of law and policy at lobby group USTelecom. "We look forward to working with the commission and interested parties to fully develop an auction process that will connect as many rural Americans living in these very high-cost areas to the Internet as efficiently as possible within the limited budget available," he said. (May 26, 2016) totaltele.com

The FCC has joined the Federal Trade Commission in launching an inquiry into mobile device security updates. The FCC's wireless telecommunications bureau has sent a letter to mobile carriers asking questions about their processes for reviewing and releasing security updates for mobile devices. Responses to the letters will inform discussions with industry about possible solutions and be shared with the FTC. In parallel, the FTC has ordered eight mobile device makers to provide it with information about how they issue security updates to address vulnerabilities in Smartphones, tablets and other mobile devices. The FCC writes that the number of vulnerabilities associated with mobile operating systems has been growing, including "Stagefright" in the Android OS, which may affect nearly 1 billion devices worldwide. According to the regulator, operating system providers, original equipment manufacturers and mobile service providers have responded to address vulnerabilities as they arise, but there have been significant delays in delivering patches to devices and older devices may never be patched. (May 10, 2016) telecompaper.com

The US Federal Communications Commission (FCC) has approved the USD17.7 billion acquisition of New York-headquartered cableco Cablevision Systems by Netherlands-based Altice Group. A statement issued by the watchdog reads: 'Based on our analysis, we find that the likely public interest benefits outweigh any potential public interest harms. Accordingly, we conclude that the transaction, on balance, serves the public interest, and we consent to the proposed assignments and transfers of control'. According to the FCC statement, following the completion of the transaction, Cablevision will be 100% directly owned by Neptune Holding US Corp, which is itself controlled by Altice. The Cablevision takeover represents one of two separate US deals that Altice agreed in 2015; the company secured regulatory approval for its US$9.1 million takeover of Suddenlink in December last year. (May 5, 2016) telegeography.com

Charter Communications' long-running dual takeover of rival cablecos Time Warner Cable (TWC) and Bright House Networks received a major boost this week, with both the Department of Justice (DoJ) and Federal Communications Commission (FCC) chairman Tom Wheeler throwing their respective weight behind the proposed tie-up. The DoJ firstly agreed a settlement forbidding the merged company, referred to as 'New Charter', from entering into, or enforcing; agreements that could make it more difficult for online video distributors (OVDs) to obtain video content from programmers. The DoJ's Antitrust Division had alleged that TWC in particular has been an industry leader in seeking such restrictions. Subsequently, Mr. Wheeler issued the following statement: 'Based on imposed conditions that will ensure a competitive video marketplace and increase broadband deployment, an order recommending that the Charter/Time Warner Cable/Bright House Networks transaction be approved has circulated to the [FCC] Commissioners. As proposed, the order outlines a number of conditions in place for seven years that will directly benefit consumers by bringing and protecting competition to the video marketplace and increasing broadband deployment. If the conditions are approved by my colleagues, an additional two million customer locations will have access to a high speed connection. At least one million of those connections will be in competition with another high speed broadband provider in the market served, bringing innovation and new choices for consumers, and demonstrate the viability of one broadband provider overbuilding another'. The FCC's final decision is expected to be imminent. (April 28, 2016) telegeography.com

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WHOLESALE NEWS

WHOLESALE UPDATES

EU governments agree new roaming rules for Netflix, Amazon

European subscribers to online video streaming services like Netflix, Amazon Video and Sky will be able to access the services when visiting other countries within the European Union under proposals agreed by member states. The law was presented by the EU executive, the European Commission (EC), last December as part of its efforts to create a single market for such online services across the 28-member bloc. The proposal on portability of digital content will become law after it is approved by the European Parliament. Consumers with subscriptions to services such as Sky TV Now, ProSiebenSat.1MaxDome TV in Germany or Netflix in France, would be able to view content they have paid for when they are "temporarily" in other countries within the EU. "This means that citizens who are in another member state for purposes such as holidays or business trips can enjoy for example music, films, games or sporting events just like at home," said Henk Kamp, Minister for Economic Affairs in the Netherlands, which holds the rotating EU presidency and managed the proposal. What constitutes "temporarily" was left open, but member states specified that it is a "limited amount of time". The EC hopes that the proposal will enter into force in 2017, the same year that roaming charges for using mobile phones in other countries within the EU will be abolished. While Netflix is already available in many European countries, content is tailored to local tastes so that a French user in Germany, for example, might not currently have access to the French catalog without connecting through a server that appears to be located in France. Public television broadcasters are not affected by the new rules, the Council of the EU said.

France's ARCEP closes in on Free Mobile-Orange roaming deal

France's operators have three weeks to submit any changes to their network sharing and roaming deals, following the introduction of new guidelines by regulator ARCEP. The regulator said it will be scrutinizing the Free Mobile/Orange roaming deal, which has enabled newcomer Free to become such a disruptive force in the country's mobile market, as well as the network sharing and roaming agreement between Bouygues Telecom and SFR. The operators must review the regulator's guidelines and then submit by 15 June any necessary amendments to their existing contracts.

The guidelines reflect ARCEP's thinking that while roaming can be beneficial, it also must be transitory or limited in scale, since it removes a newcomer's incentive to invest in their own infrastructure, a criticism made of the Free Mobile-Orange deal. The regulator had kinder words for network sharing, which is helpful in more sparsely populated parts of France, with a negative impact on competition outweighed by the positive effect for coverage and quality of mobile service. The regulator examined the third existing network sharing agreement, which covers all four mobile operators as part of the national program to expand mobile coverage in France's most rural areas, early this year. The agreement was approved, with a few adjustments. The regulator previously proposed an end date to Free Mobile's roaming deal with Orange. For 3G, the agreement should finish between end-2018 and end-2020, it said. For the less important 2G services, the agreement should end between the beginning of 2020 and the end of 2022.

ARCEP suggests slow end to French price war

France's infamous price war appears to be slowly reaching an end, with a new report from watchdog ARCEP showing that mobile prices decreased at a far less aggressive rate in 2015 compared to previous years. Iliad-owned Free Mobile's arrival in the French market in 2012 sparked an aggressive price war with Orange, SFR-Numericable and Bouygues, as the new entrant began undercutting rivals. Consolidation talk has since been high on the agenda to cut the market back to three players, but no deal has yet surfaced, despite numerous attempts. While prices continued to decline in 2015, according to ARCEP's annual study into price changes for mobile services between 2010 to 2015, it was at a much lower rate. There was an average cut of 5.5 per cent in 2015, accounting for both flat rate plans and prepaid cards, representing a dramatic decrease from 2013, when prices fell by as much as 26.6 per cent, and 2014, which saw a fall of 10.6 per cent. ARCEP put the decrease in the price of flat rate plans down to the "swift development of SIM only plans" without a subsidized handset, as well as the trend of increasing data allowances attached to plans, with prices remaining unchanged. Approximately 64.7 per cent of phones were purchased without a package last year, a 7.9 percentage point increase from 2014. It also said that price decreases were "more pronounced with the less they consume". For heavy consumers, prices remained virtually unchanged in 2015, while light consumers saw decreases of 12.2 per cent. Orange CEO Stephane Richard said last year it was "insane" to think that prices would continue to decline in coming years.

Indian operators pressing TRAI to lift a ban on differential pricing of data services

A body representing leading operators is pressing the country's regulator, TRAI, to lift a ban on differential pricing of data services, citing a lack of clarity in rules, said Economic Times. The subject leapt into the public consciousness during an intense national debate in India over net neutrality, leading to TRAI prohibiting differential pricing. The decision effectively banned zero-rated services such as Facebook's Free Basics and Bharti Airtel's Airtel Zero. COAI (Cellular Operators Association of India) has now written to the regulator, asking it to change its mind in light of the confusion over services delivered via closed electronic communication networks (CECNs), also known as the intranet. The letter asked TRAI "to review its decision of the CECN network and allow differential tariffs on the basis of content irrespective of whether such content is provided through the closed network or open internet". The body argued that the regulator allows discriminatory pricing of data services when content is delivered over CECNs. Net neutrality supporters acknowledge CECNs could offer a loophole for operators to offer zero rated services. However, TRAI argues the rules on data pricing are clear. TRAI's letter looks for clarification on two areas. Firstly, whether an operator could share advertising revenue with a content provider which is providing exclusive content to an operator's subscribers at a subsidized rate. And if a content provider could offer subsidized subscription to some or all of an operator's subscribers, whether that is a CECN. The correspondence comes within weeks of the country's largest operator, Bharti Airtel, approaching the regulator about a potential deal with an unnamed US content provider that would supply exclusive video over the operator's intranet.

CBL, BTC respond to proposed national roaming agreement

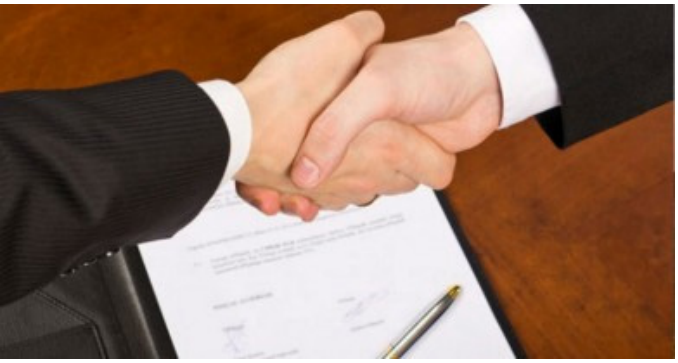
Bahamian telecoms regulator the Utilities Regulation and Competition Authority (URCA) has published industry responses to its proposal to impose a significant market power (SMP) obligation on incumbent Bahamas Telecommunications Company (BTC), forcing it to provide access to its network to newcomer Cable Bahamas Ltd (CBL)-managed NewCo via a national roaming agreement. The measure is intended to ease NewCo's commercial launch by allowing the cellco to offer services throughout the country via BTC's network whilst it builds out its own infrastructure. URCA's proposal would require BTC to provide coverage only in areas where NewCo has not rolled out its own network. The regulator also clarified that NewCo would still be required to meet the coverage targets set out in its license and, as such,

would last a maximum of 36 months. CBL, which has management control and owns a 48.25% equity stake in the new cellco, supported the proposal but requested that several points be clarified or amended. The incumbent, however, criticized the proposal, saying that URCA had: 'not provided any substantive evidence in support of its assertion that a national roaming obligation on BTC is in fact necessary, appropriate, efficient or proportionate to its purpose as required under the Communications Act.' The operator added that a 36-month timeframe was inappropriate, as NewCo should be in a position to cover a very high percentage of the population of the Bahamas within 18 months of the allocation of its license and recommended that obligation be eliminated after that period. BTC also requested that NewCo's finalised rollout obligations be tied to the roaming agreement, so that BTC is not requested to provide roaming in areas where NewCo is obliged to provide coverage using its own network. The two operators clashed on the provision of advanced services under the national roaming agreement, with CBL requesting that URCA add that BTC should provide access to all of its existing and future networks, including 3G and 4G platforms. For its part BTC questioned the inclusion of any service beyond basic call, messaging and data services, saying that URCA had not provided any evidence to justify the inclusion of BTC's 'premium LTE network.'

Omantel named among top global wholesale operators

Omantel, the first integrated telecommunication services provider in the sultanate, has been named among the world's top wholesale operators at the 2016 Mobile Virtual Network Operators (MVNO) World Congress hosted by Informa Telecoms & Media. Omantel was ranked second in the category of 'Best Wholesale Operator' behind UK provider EE (part of British Telecom Group) at the awards ceremony held in Amsterdam, the Netherlands, on April 13, a company statement said. Commenting on the achievement, Eng Yasser Redha Said al Lawati, senior manager of national accounts & interconnection department of the Wholesale Business Unit at Omantel, said, "We are indeed honored to continue to be globally recognized as one of the top wholesale operators. Today, the market share of Omantel MVNOs is around 16 per cent, which is the highest MVNO market share outside Europe and among the top five worldwide according to recent international reports. This reflects the significance of our MVNO partners in the highly competitive market of Oman." MVNOs are service providers that do not own their own full-fledged telecommunications network and are known as mobile resellers in Oman. Instead, they buy services on wholesale basis from Class I operators and package services for retail with their own brand name. Justyna Topczewska, senior conference researcher at Informa Telecoms & Media, said, "I am pleased to see that the MVNO market in the Middle East is picking up and it is great to see that operators like Omantel are internationally recognised for their effort to help this market to grow." Omantel is also a founding partner of the International MVNOx Association (iMVNOx) and is working closely with the association to develop best business practices and commercial models to enable MNO and MVNO partnerships to flourish.

Bell complying with CRTC's wholesale internet policy under federal ruling



Bell Canada accepted a federal decision which supports a previous ruling forcing large internet providers to offer access to their high speed infrastructure to smaller rivals at regulated wholesale prices, the Toronto Sun reports. Canada's largest communications group had asked the government to overrule a July 2015 decision by the Canadian Radio-television and Telecommunications Commission (CRTC) that requires it and other telecoms heavyweights to give independent ISPs access to their advanced networks at a reduced cost; the CRTC will set the prices based partly on cost studies provided by the major telcos, commission spokesperson Patricia Valladao said. In its appeal, Bell had argued that the regulation would discourage investments in broadband infrastructure, resulting in high speed internet reaching fewer rural communities, whilst its western Canadian-based counterpart Telus shared this viewpoint, claiming that the regulation 'turns already risky investments into potentially untenable ones' and would compel it to reconsider the scale and timing of its planned investments. However, the minister responsible for telecoms, Navdeep Bains, disagreed, stating in yesterday's ruling that middle-class and low-income families need access to affordable high speed internet and the CRTC decision helps fulfil that goal by enabling stronger competition. 'The decision strikes the right balance between the private sector having incentive to invest and consumers having a competitive choice,' his statement added. Bell spokesperson Jacqueline Michelis said in an e-mailed response: 'We'll abide by the rules and move forward.'

NTT Communications and Omantel Agree to Collaborate on Wholesale IP Services

NTT Communications Corporation (NTT Com), the global data and IP services arm of Fortune Global 500 telecom leader NTT NTT, +0.04% and Omantel, a leading GCC wholesale communication solutions provider, announced today an agreement to collaborate on wholesale IP services at several locations worldwide. This agreement creates considerable synergies for both companies in several markets around the world in terms of reach, bandwidth capacity and market expertise, and builds on a shared commitment to further improving the service portfolio available to their customers around the world. "We are delighted to partner with Omantel and look forward to a strong and mutually beneficial collaboration," said Clive Hamilton, vice president of Network

Services – EMEA at NTT Europe. "NTT Com is a trusted partner that can quickly respond to growth in demand for high performance wholesale IP capacity without compromising quality," Mr. Hamilton added. "We are committed to further extending our customers' regional and global reach and help them achieve their business goals," said Sohail Qadir, Vice President Wholesale Business, Omantel. "As the owner and operator of one of the region's largest networks, we strive to provide services that exceed our customers' expectations, and we are confident that this collaboration will help us reach that goal," Mr. Qadir concluded. This collaboration will expand the reach of NTT Com's Tier-1 Global IP Network and offer Omantel's enterprise and wholesale customers more options to connect at several locations around the world. Similarly, Omantel will provide NTT Com with low-latency backbone capacity that will further enhance the robustness and reliability of NTT Com's IP backbone. The announcement brings together two well-respected companies in the telecommunications industry. NTT Com was recently named Best North American Wholesale Carrier for the second year in a row at the Capacity Global Carrier Awards 2015 and Best Wholesale Operator at the 2015 World Communication Awards (WCA). Omantel was recognized as the most valuable brand in Oman by the annual brand survey of Brand Finance and voted as the Most Trusted Brand in the telecom sector in the Sultanate according to the Oman Economic Review, a local English magazine. Benefitting from the unique geographical location and the political stability of the Sultanate, Omantel owns one of the largest submarine networks in the middle east with 5 landing stations hosting more than 10 international submarine cables connecting east with west.

Vodafone UK now offers free roaming to 40 countries

Vodafone UK has become the latest mobile operator in Europe to enable its subscribers to travel abroad without paying roaming fees. Just days after the European Commission further reduced the prices that mobile operators can charge on top of their domestic offerings, the operator said

it would now offer inclusive roaming in 40 destinations, including Turkey, six Caribbean islands and Switzerland. Vodafone said the offer applies to 12-month and 24-month Vodafone Red and Red Value bundles, and includes unlimited calls, texts and picture messages, and a monthly data allowance of up to 4 GB. Prices start from £18 (€22.86/$26.13) for 500 MB of inclusive roaming within an overall data allowance of 2 GB. The cost of a plan with 4 GB of roaming data and 12 GB of data in total is £32. Mobile operators across Europe have been addressing roaming with a growing sense of urgency, as they need to ensure they retain users with attractive offers ahead of the elimination of roaming fees in the European Union from mid-June 2017. In the UK, Vodafone UK now joins Tesco Mobile, whose new Home From Home service will remove additional roaming fees this summer, and 3 UK. 3 UK has been offering the "roam like home" Feel Like Home service for some time, and provisions a maximum data allowance of 12 GB for roaming use. Inclusive roaming is also provided by operators such as Free Mobile in France and Telekom Austria's A1, among many others. Vodafone UK said it is able to claim some advantages over rivals, such as the fact that it offers 4G roaming in 32 destinations in Europe and 93 worldwide. It also noted that it does not throttle data speeds when roaming. It added that its research shows that over 80% of all overseas trips taken by its pay monthly customers are within its new inclusive roaming zone.

Sevastopol's Sevtelecom users get Russian mobile roaming

In an announcement on its website dated 29 April 2016, Sevastopol-based Sevtelecom disclosed that its mobile division SevMobile has attained mobile roaming agreements for the whole of Russia. SevMobile launched its consumer packages of SIM cards with voice and mobile internet access on 19 February 2016 and says it has signed up 5,000 subscribers so far. Russia administers the city as part of the Crimean Federal District (incorporating the Federal City of Sevastopol and the Republic of Crimea) although the Crimean peninsula is still regarded as part of Ukraine by many other countries. None of the main Russian mobile providers (MTS, MegaFon, Beeline and Tele2) operate in Crimea.

EC finds split among operators on wholesale roaming

An EC consultation found "differing perceptions" among operators about how effectively the wholesale market for roaming services is working, as a group of smaller European operators and MVNOs argued significant price cuts are needed. The Commission noted a number of trends, and that operators were split. Larger players and those with a significant inbound traffic volume, argued competition means wholesale roaming prices are often below the existing cap. In contrast, smaller operators and those with large outbound roaming traffic, as well as MVNOs, said the prices available to them on the wholesale market are at, or close, to the current cap – and substantially above cost. A group of smaller operators and MVNOs earlier published a statement, warning of negative consequences if the EU does not oversee a reduction in wholesale rates. The group brings together three of Europe's smaller operators, Free, 3 and Play, as well as group MVNO Europe, whose members include Liberty Global, Fastweb, Sky, TalkTalk and PosteMobile. The aim of the EC review and legislation is to bring down the current regulated wholesale roaming caps, which were set in 2012. The cap is the maximum price an operator has to pay a visited network when its users are roaming abroad. "Without any further steep reduction

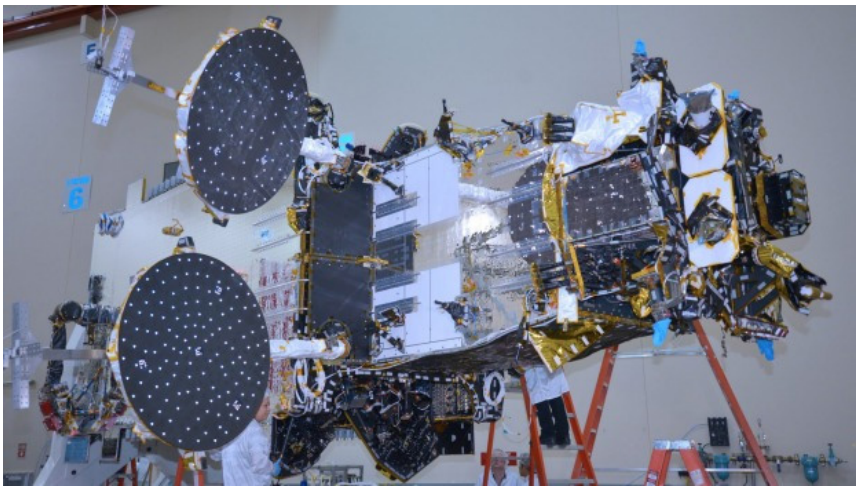
of these caps, a large number of mobile operators may decide or be forced to impose restrictions to users when roaming abroad through complex and unfriendly contractual clauses," a statement warned. "This would be a disappointing outcome for European users, and it should be avoided at all costs. It would also go against the European Parliament's repeated calls to end roaming surcharges once and for all," it added. The European Commission intends to publish its wholesale roaming review, and any legislative proposals, not later than 15 June this year, to enable sufficient time for the whole process to be completed with the European Parliament and Council by a 15 June 2017 deadline.

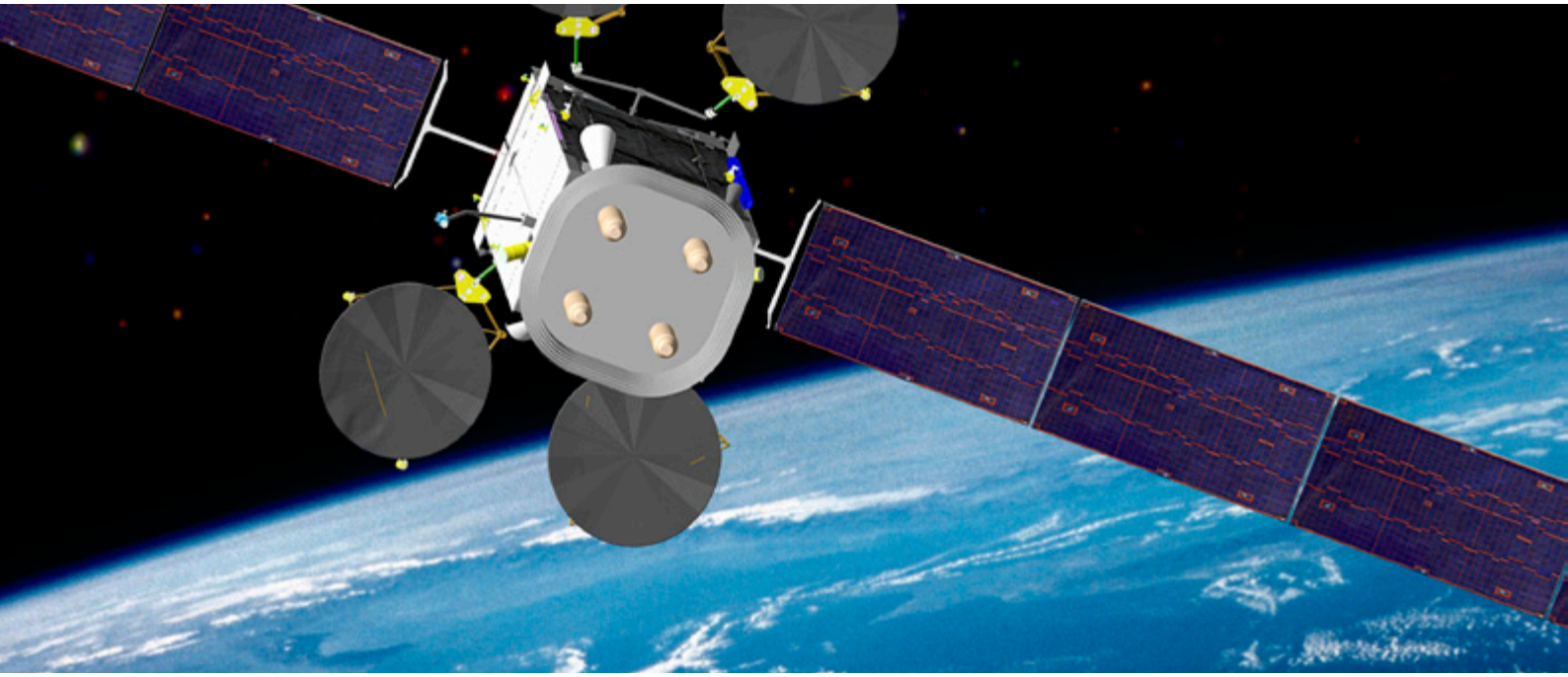
Mobile operators call for EU action on wholesale roaming

A group of smaller mobile operators and MVNOs have called on the EU to work faster on reducing wholesale roaming prices if it wants to achieve the goal of 'roam like home' across the union by June 2017. The roaming coalition, which includes operators such as 3, Free and Play as well as industry group MVNO Europe covering together nearly 70 million customers, welcomed the cut from 30 April of retail roaming prices. However, they see a need for a sharp reduction in the current wholesale roaming price caps in order to allow smaller operators to compete. In particular, wholesale data roaming prices need to come down from the current "unjustifiably" high level above domestic wholesale rates in many countries. The group said the European Commission will need to come up with a legislative proposal by June if it's to complete the process of obtaining approval from Parliament and the Council by the current deadline of 15 June 2017 for an end to all roaming surcharges. Without any further steep reduction in wholesale roaming price caps, a large number of mobile operators may decide or be forced to impose restrictions on users when roaming abroad through complex and unfriendly contractual clauses, the operators warned. The European Commission has already held a public consultation on wholesale roaming and has said it aims to come with a proposal by June. The differences in roaming versus domestic rates and between EU countries was flagged already in 2014 by EU regulator Berec, before the latest roaming regulation was adopted. The regulator had warned that without further intervention in the wholesale market, 'roam like home' may not prove tenable.

NBN satellite service goes on sale

Australia's NBN announced the commercial launch of its wholesale satellite broadband service. Called Sky Muster, the network covers 400,000 people in rural and remote areas, and can support connection speeds of up to 25 Mbps on the downlink and 5 Mbps on the uplink. The commercial launch follows successful live trials with 200 households. "The NBN Sky Muster satellite service will make a truly transformational difference to rural and remote Australians as we offer some of the world's fastest and largest consumer satellite broadband plans to remote and isolated areas of Australia," said John Simon, NBN's chief customer officer, in a statement. Services will be sold by retail service providers (RSPs), but a field force of 600 NBN-trained engineers will go out and physically connect new customers to the service. "It will take some time to get all eligible premises connected due to the sheer size of our 7.69 million km2 country, so we ask for patience as our teams travel around to install the service," Simon said. The Sky Muster satellite blasted off in October 2015. It is the first of two satellites which together will have a combined capacity of 135 Gbps. "Many of the places Sky Muster will connect to have virtually no access to broadband right now. To go from nothing to a high speed service will be a game changer for these places and the people that live there," said Jack Archer, CEO of the Regional Australia Institute (RAI). Sky Muster replaces NBN's troubled interim satellite service, which covered 250,000 eligible customers but only had capacity sufficient to connect 48,000. Once that limit was reached, NBN stopped taking new orders. Those those were able to sign up experienced connection speeds equivalent to dial-up Internet. To ease the pressure, NBN partnered with Thaicom subsidiary IP Star, which agreed to provide wholesale and retail satellite services covering a further 9,000 rural premises.





SATELLITE NEWS

SATELLITE UPDATES

Eurovision Leases Capacity across Four Eutelsat Satellites

The European Broadcasting Union (EBU) signed new contracts for capacity on four Eutelsat satellites. The capacity will be used to carry live Eurovision broadcasts of flagship sporting events, including all major European football championships and this year's most popular summer sports events. Using the Eutelsat 65 West A, Eutelsat 12 West B and Eutelsat 5 West A satellites, the EBU will extend its footprint to new regions, notably Africa with a full-time lease for capacity. The new leases coincide with the renewal and expansion of capacity contracted by the EBU on the Eutelsat 7B satellite.

ViaSat Boosts R&D to Build ViaSat 3 Payloads in-House

ViaSat expects to spend close to $100 million on Research and Development (R&D) throughout its fiscal year 2017 dedicated to developing the high capacity ViaSat 3 satellite system. The Ka-band satellite system, first announced in December last year, consists of three terabit-level spacecraft, with the first covering the Americas and the second covering Europe, the Middle East and Africa. While Boeing is the manufacturer for the first two ViaSat 3 satellites, ViaSat is taking on much of the work itself. The company is pursuing an unconventional approach to satellite procurement, opting to build the payloads for ViaSat 3 in-house in its own facilities. This is driving R&D expenses up by approximately 50 percent, with aeronautical being the other main area of increased R&D investment. "We believe it's extremely difficult to [obtain] the kind of technology needed to reach this kind of productivity without the level of vertical integration we have achieved," Mark Dankberg, chairman

and CEO of ViaSat, said May 24 during a conference call accompanying the company's 2016 fourth quarter and year end financial results. "It requires close

coupling of multiple technology and business domains in ways that are not practiced by incumbent satellite operators, satellite manufacturers or other members of the existing business ecosystems. We started this journey years ago, and we've got a systematic approach to burning out technical and systems risks." Boeing is providing the payload framework for ViaSat to build the payloads into. Dankberg has previously mentioned ViaSat's work building payloads with Thales Alenia Space for Iridium Next as providing valuable experience. In a previous interview with Via Satellite, he described mass-producing the payloads as akin to achieving the economies of scale pursued by Low Earth Orbit (LEO) systems, but without the need for production of other technologies such as propulsion or solar arrays. "We just recently opened our new Arizona facility that includes a clean room high bay for assembling two concurrent ViaSat 3 payloads. Initial market reactions to the ViaSat 3 constellation have been very encouraging. We continue to make progress with multiple potential partners as well as users for the system," he said. Dankberg said payload flight hardware builds will be capitalized investments, while pre-flight hardware builds and tests will be expensed. He said that because pre-flight hardware expenses are "front loaded" in the overall ViaSat 3 program, the company will be incurring a large portion of these costs in fiscal year 2017. ViaSat is bearing more of the R&D costs associated with new satellites than a typical company because of its much more involved approach. Dankberg stressed that this more invested strategy is critical to bringing improved bandwidth and coverage at an accelerated rate. ViaSat 2, the company's soonest to launch spacecraft, is now within seven months of its Ariane 5 mission. The next generation High Throughput Satellite (HTS) has roughly twice the capacity and seven times the coverage of its predecessor, ViaSat 1, deepening the company's presence in North America and expanding to include parts of Latin America down to Colombia and Venezuela, along with transatlantic coverage to Europe. Dankberg said the construction of ViaSat 2, which Boeing is also building, is progressing steadily. The satellite is almost fully integrated, and will soon undergo thermal and vibrational testing in preparation for launch. ViaSat is also close to completing insurance at what Dankberg described as "favorable rates." Having switched from launching on the yet-to-fly SpaceX Falcon Heavy, Dankberg previously mentioned launching with Ariane 5 as improving insurance costs. The satellite is expected to create lots of new business opportunity by providing growth capacity. During fiscal year 2016, ViaSat reported record revenue of $1.4 billion, along with record awards of $1.5 billion. Two of the company's divisions, satellite services and government systems, saw record quarterly highs of $145 million and $164 million respectively. Commercial networks declined 26 percent for the quarter year over year, which ViaSat attributed to the winding down of work with Australia's NBN Co. ViaSat's consumer subscriber count grew 2 percent year over year to 697,000, and the company's total number of connected commercial aircraft reached 476. Total revenues for the quarter were $372 million. Dankberg said ViaSat intends to offer plans and services to subscribers with ViaSat 2 that allocate more bandwidth per subscriber than provided today. Though subscribers shifting from ViaSat 1 to ViaSat 2 may cause the former satellite's fill rate to decline, he said the combined number of subscribers is expected to grow meaningfully. Dankberg dismissed concerns that weakness seen in the revenues of other Fixed Satellite Services (FSS) operators might translate to ViaSat as well. Instead he pointed to massive jumps in capacity matched with concomitant drops in pricing as creating a much larger addressable market, thus justifying future investments.

Avanti Awarded Long Term Contract from Sematron, Will Support Broadcast with Ka-band

Avanti Communications has entered a new, long-term contract with Sematron. Based in the United Kingdom and operating globally, Sematron is a content delivery company specializing in IP connectivity, video broadcast and distribution. With access to dedicated capacity across the entire Avanti Hylas fleet of satellites, Sematron will provide a major U.K. national broadcaster with high speed Ka-band satellite news gathering facilities, such as outside broadcast vehicles, across the entire country. David Williams, CEO of Avanti, hailed the deal as significant not only for Sematron, but also as a major breakthrough for "Ka-band satellite technology to become mainstream in outside

broadcasting." In an interview with Via Satellite last year, Williams hinted at video becoming a larger opportunity for Avanti, which otherwise primarily focuses on broadband services.

SES Gets Contract Renewal from iN Demand for HD Sports Broadcasts

SES customer iN Demand has renewed a capacity agreement to continue the delivery of its High-Definition (HD) professional sports packages and Pay-Per-View (PPV) events to cable audiences across the Americas. iN Demand delivers content via PPV, Video On Demand (VOD) and digital platforms. The company has retained two C-band transponders on the SES 3 satellite, located at the center of the operator's orbital arc over the United States. iN Demand uses four full-time transponders aboard three SES satellites (SES 3, AMC 10 and AMC 11) to deliver sports and entertainment programming to audiences across the Americas. SES supports iN Demand's PPV business and the delivery of professional sports packages, including Major League Baseball (MLB), the National Basketball Association (NBA), the National Hockey League (NHL), soccer, boxing, Mixed Martial Arts (MMA), wrestling and entertainment events to more than 60 million digital cable households across the region.

SpeedCast Upgrade to Double bmobile-vodafone's Network Capacity in Solomon Islands

Bmobile-vodafone Solomon Islands has selected SpeedCast International to upgrade its cellular backhaul network to support 3G data services in the Solomon Islands. The new network will double the current capacity to support 2G and 3G voice and data services. SpeedCast is deploying this service through O3b Network's high throughput, low latency satellite network, which has been used for all data services on the island since 2014. The solution will support the upgrade of existing 2G services to a new mobile 3G network for the three main urban areas of the Western Province on the Solomon Islands, known for their fishing, factories, tourism and logging trades. This network upgrade comes as the demand for new 3G data services in the Solomon Islands has increased significantly over the last year. SpeedCast's cellular backhaul solution will enable bmobile-vodafone to respond to increasing data requirements, as well as form a base for future network upgrades, which are expected in order to keep up with the increasing cellular data traffic.

NovelSat Releases N+1 Redundancy Family of Switches

NovelSat has announced a new series of hot standby redundancy switches designed to boost the reliability of any of its satellite transmission solutions. The new series includes the NovelSat NSR9100 (1U) switch and the NovelSat NSR9800 (3U) switch. The NovelSat N+1 Redundancy Switch solution enables hot standby redundancy for up to eight NovelSat modulators, demodulators or modems. The N+1 switch supports RF switching as well as terrestrial interfaces switching. It continuously monitors the health of protected units, and in case of an alarm, copies the configuration from the unit reporting the alarm to the redundant unit and automatically replaces the faulty unit's functions with the spare (+1) unit. The NovelSat NSR9100 redundancy switch supports configurations starting at 1+1 and a single NSR9800 switch can support up to 8+1 configuration. The two units can be cascaded to expand support for additional (more than eight) components, such as modulators, demodulators, and modems.

Tunisia's ONT Strengthens Agreement with Eutelsat

The Tunisian broadcasting corporation ONT has signed a multi-year contract with Eutelsat to broadcast its new subscription-free TV platform across North and West Africa. The company is consolidating around 10 Tunisian channels in a single package on Eutelsat 7 A West, located at the 7/8 degrees west orbital slot. The spacecraft's footprint also enables the ONT to extend reach to West Africa. "The launch of this national project is a vehicle for Tunisia's sovereignty in the field of broadcasting. Viewers will be able to enjoy a diversified and quality line-up of Tunisian content," said Tunisia's Minister of Communication Technologies and Digital Economy, Noomen Elfehri. ONT also leases capacity on three other Eutelsat satellites, Eutelsat 12 West B, Hot Bird and Eutelsat 36B, for newsgathering and broadcasting to the general public.

Inmarsat's Jet Connex Makes Strides Toward Business Aviation Launch

Inmarsat's broadband In-Flight Connectivity (IFC) service is moving closer to launch. Rockwell Collins announced it has validated the network's performance as well as a number of its own value-added services and Gogo has added the Ka-band connectivity service to its portfolio for business aircraft operators flying globally. Inmarsat expects Jet ConneX will be available globally in mid-2016, and will support high-speed Internet via Inmarsat's Ka-band Global Xpress fleet. Those who select the Jet ConneX network under Gogo will be able to integrate with other services, including other equipment, network services and in-flight entertainment. Jet ConneX supported applications include: streaming TV in real time, high-speed broadband Internet access, video calling and conferencing, Voice over IP (VoIP), SMS messaging, flight deck and cabin crew applications, among others.

Iridium Offers Alternative GPS Service Using its Own LEO Constellation

Iridium has launched a new Position, Navigation and Timing (PNT) capability called Satellite Time and Location (STL) that can substitute or augment traditional location-based technologies. STL technology deployed through the operator's network of 66 cross-linked satellites in Low Earth Orbit (LEO) and in end-user receivers can verify GPS, Glonass, Galileo, and other navigation services and, if needed, can fill in for them

should they become compromised. Iridium says STL can protect, toughen and augment traditional GPS technology by providing a position or timing source when GPS signals are degraded or unavailable. It can also provide an alternative source of time to check the integrity of a GPS signal, and works indoors, according to the company. STL fits on a chip set about the size of a postage stamp, and can be easily embedded into devices of all kinds. The technology's signal strength can help make GPS systems more difficult to spoof, because signals are transmitted through Iridium's satellite constellation with a unique code to each position on the ground. The code can be independently authenticated, proving that a device is located in a specific place in the world, thus enabling "location aware" applications that only allow operation or access if the user is in the location expected. Iridium is working with Satelles, a division of iKare Corporation, as its primary technology partner to deliver this solution through Iridium paging channels, which are able to reach small, low-cost receivers in most environments. Satelles provides technology and services to companies that are commercializing this capability to protect assets, authenticate users, or do other functions reliant on GPS time and location. To date, Iridium has successfully demonstrated its STL solution across multiple sectors

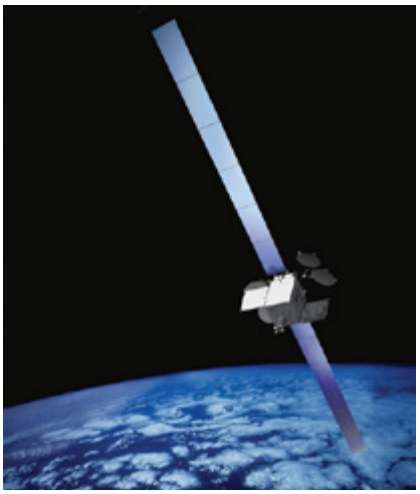
including the military, academia and commercial applications. This technology is available today and will be supported by Iridium Next, Iridium's next-generation global satellite constellation, which is scheduled for completion by late 2017.

Harris Receives $384 Million Space Communications Contract Extension from NASA

NASA has extended Harris Corporation's five-year Space Communications Network Services (SCNS) program contract through two one-year options, adding $384 million of contract ceiling. Harris will continue to support SCNS, which provides most of the communications and tracking services for a wide range of Earth-orbiting spacecraft, such as the International Space Station (ISS), the Hubble Space Telescope, and Earth Observing System (EOS) satellites. As prime contractor for SCNS, Harris also provided communications support to NASA's successful Orion Exploration Flight Test-1 Mission in December 2015, which marked a critical step in NASA's return to human space exploration. Harris received the new SCNS award during its third quarter of fiscal 2016.

Telkom Indonesia to Co-Market Capacity from SES 9 Satellite

PT Telekomunikasi Indonesia (Telkom) and SES have entered a new strategic partnership whereby Telkom will provide connectivity to the Indonesian market via capacity on the recently launched SES 9 satellite. SES and Telkom will co-market SES 9 capacity over Indonesia, allowing customers from across all market verticals, including video, cellular, broadband, maritime and aeronautical, to use capacity from the satellite within the country. SES 9 will be collocated with SES 7, operating in the arc around 108.2 degrees east, and has a dedicated beam that comprehensively covers the Indonesian archipelago. Scheduled to enter service mid-2016, SES 9 will deliver high-powered capacity to the Asian markets using 57 high-power Ku-band transponders (81 × 36 MHz transponder equivalents). The Boeing-built satellite is SES's latest and largest spacecraft for the Asia-Pacific region, providing both replacement and incremental capacity.



Startup CEO Lays Out Vision for Constellation of Cloud Data Centers

Cloud Constellation, a satellite industry startup, is designing a network of Low Earth Orbiting (LEO) data centers for cloud service providers with needs for highly secure communications. Called the "SpaceBelt," Cloud Constellation is in discussions with four satellite manufacturers to produce the network on a timeline that would see the first spacecraft reach orbit by late 2018. In March this year Cloud Constellation completed a Series A investor round to start funding the constellation. According to the company, the proposed constellation will cost $460 million to complete, which the company will seek to raise through a combination of investor capital and debt financing. Scott Sobhani, CEO and co-founder of Cloud Constellation, told Via Satellite that the goal of the company is to create a worldwide cloud storage networking capability that does not rely on lease lines, Internet cable, or any other network to function. The constellation would serve enterprise and government customers needing to transport sensitive and mission-critical information that requires high levels of security. Citing cybersecurity risks with common ground infrastructure, and a "pandemic crisis" level of surreptitious cyber theft and monitoring by hackers and other malefactors, Sobhani said Cloud Constellation felt creating its own system was the best way to ensure protected cloud data services. "We feel, at SpaceBelt, that human error will never leave. It will never disappear, so in order to address the needs of enterprises, we need to create an entire system that is uniquely and exclusively just for the enterprise, can protect the data, and supply a dedicated point-to-point and mesh network around the world," he said. Cloud Constellation started designing SpaceBelt about three years ago. Sobhani said the company sought not to "overbuild" the project and instead focus on creating a simpler system that is more robust. The initial constellation is to feature eight data-center-type satellites that can grow modularly to scale with the evolution of cloud storage and computing technology. Sobhani said the spacecraft will use inter-satellite links to communicate with each other and eliminate the need for Points of Presence (PoPs) on the ground. "[Our network] can actually cross-strap any Radio Frequencies (RF) that it sees into the SpaceBelt network without having to force that source to touch the ground or interconnect using Earth stations or hops to do that," he explained. "Our system has the ability to accept any RF signal, and allow it to uniquely or privately speak to any other RF signal that is also connected to the SpaceBelt. That allows for someone on one end of the world that might be operating in Ka-band to communicate with someone in C-band on the other side of the world." Sobhani said Cloud Constellation terminals designed to work with the SpaceBelt would be located at the sites of enterprise or government customers, their receiving offices and remote sites, and would be able to communicate without any requirement to touch or communicate with the Internet, leased-lines or other infrastructure. The terminals will be certified to United States defense military standards for security. By keeping customers' data in space, Sobhani said SpaceBelt obliges jurisdictional laws of governments

that desire to keep certain data within specific national or supranational boundaries. He described these jurisdiction laws as one of the biggest challenges faced today by cloud service providers. Keeping the infrastructure for these customers in space would be akin to having it in international waters under the international space treaty, Sobhani said, thus guaranteeing that data only touches land in the regions it is allowed. Sobhani said the Series A round raised $5 million dollars, which was enough to get to the point of procurement. While admitting $5 million is a ways off from what is ultimately needed, he said the funding brings the company closer to the total amount it needs before tapping Export Credit Agencies (ECA) for support. "We only need $190 million more to actually fulfill our equity target. The rest is to be raised with debt and the debt should be something to the effect of any number of COFACE or EDC or Ex-Im financing," he said. Sobhani said Cloud Constellation boiled the cost of its program from $4 billion to its $460 million goal. Working with more limited resources forced the company to plan in a deliberate and more efficient manner, he said. "We don't think that would have been possible with a series of deep pocket investors from Silicon Valley trying to do it because we've seen what comes out of that: lots of satellite constellations blanketing the Earth, wildly over-covering and trying to recover from lots of interference issues. We see that as being enabled by massive amounts of money thrown at the problem," he said. Cloud Constellation is aiming for a 24-month delivery schedule for its satellites, with launches placing spacecraft in orbit by the end of 2018, followed by service starting in 2019. Sobhani said the company has customers that are interested in using SpaceBelt, and that the entire system should be self-funding by its second year of service. When launching the system, he said no more than half the fleet launch requirement would sit on any rocket, and that the company plans to use multiple launch vehicle types to reduced risk. If SpaceBelt proves successful, the system is designed to grow and increase in orbiting storage capacity. Sobhani said Cloud Constellation would plan to put up the same number of satellites every year to scale with demand. "We plan to put up petabytes and petabytes of data each year, and my objective is that that would exponentially grow. We are probably going to hit an exabyte in space by year five, and many exabytes thereafter," he said.

AsiaSat to Broadcast 4KUniverse on AsiaSat 4

4KUniverse, a new general entertainment Ultra-HD channel, will be available on AsiaSat's "4K-Sat" Ultra-HD channel by mid-May on the AsiaSat 4 satellite. The channel features movies, TV series, documentaries and live sports filmed in 4K resolution. 4KUniverse is one of the first premium general entertainment 4K TV channels available to the global marketplace. The channel is making content available to Direct-to-Home (DTH) and Internet Protocol Television (IPTV) operators today, with plans to launch a full 24/7 Ultra-HD channel in Asia during the fourth quarter of this year.

Turkey to Launch New Telecommunications Satellite into Orbit (Exclusive)

Turkey will launch a new telecommunications satellite TURKSAT 6A into the orbit by late 2019, Turkey's Ministry of Science, Industry and Technology told Trend. Turkey has no financial difficulties for launching the new telecommunications satellite, the ministry said. The first Turkish reconnaissance satellite RASAT was launched into the orbit in 2011. Turkey launched its second satellite Gokturk-2 from the Chinese Jiuquan satellite-launching center on December 18, 2012. Currently, the satellite is used for defense purposes.

Yahsat Discusses YahClick Opportunities with Tele10 for Rwanda, Burundi and East DRC

Yahsat has signed a Memorandum of Understanding (MoU) with Tele10 Group, a regional broadcast and Internet Service Provider (ISP), to discuss collaborations for improving Internet connectivity in Rwanda, Burundi and East Democratic Republic of the Congo (DRC). The MoU comes ahead of Yahsat taking delivery of its third satellite, Al Yah 3, from manufacturer Orbital ATK. The launch of Yahsat's upcoming satellite will see the roll out of the company's YahClick broadband service to 19 new markets in Africa during the first half of 2017. Tele10 has been serving the East African region for 20 years by providing diverse solutions including pay-TV, radio broadcasting, and Information and Communication Technology (ICT) services. In 2017, the company will grow its portfolio to offer the YahClick Ka-band broadband products, services and value-added solutions to its existing customer base as well as new customers. As Yahsat works toward expanding its coverage area across the African continent, the company is in talks with local service providers to reinforce the presence of YahClick and strengthen its customer care.

Yahsat, Tele10 to collaborate on satellite broadband plan; Facebook plots sub-Saharan push

UAE-based satellite broadband operator Yahsat has signed a Memorandum of Understanding (MoU) with African broadcaster Tele10 Group, to discuss possible collaborations for improving internet connectivity in Rwanda, Burundi and the eastern parts of the Democratic Republic of Congo (DRC). The MoU comes ahead of Yahsat taking delivery of its third satellite, Al Yah 3, which will lead to the rollout of YahClick – the company's satellite broadband service – to 19 new African markets during the first half of 2017. David Murphy, Yahsat's chief commercial officer, commented: 'At Yahsat, we are dedicated to serving underserved and remote areas by providing better connectivity to new and existing internet users. To further our commitment to the region, we have entered an MoU with Tele10 to discuss the provision of high speed connectivity to three of Africa's fast-emerging markets, Rwanda, Burundi and East Democratic Republic of the Congo'. In other satellite-centric news, Eutelsat Communications and Facebook have selected Hughes Network Systems to supply its Jupiter System as the technology platform for the satellite broadband services that the two companies are preparing to launch in sub-Saharan Africa. With high-gain Ka-band spot beam capacity provided by Spacecom's AMOS-6 satellite, Eutelsat and Facebook have noted that they are assembling

a dedicated infrastructure that will extend cost-effective broadband to areas beyond reach of fixed and mobile terrestrial networks. The AMOS-6 satellite is due to enter service in early 2017.

International Space Station Completes 100,000 Orbits

The International Space Station (ISS) completed its 100,000th orbit on May 16, NASA announced yesterday. The orbiting research platform has travelled more than 4.2 billion kilometers (2.6 billion miles) while circling the planet — a distance almost equivalent to the space between Earth and Neptune (4.7 billion kilometers, or 2.9 billion miles), or 10 round trips from Mars to Earth. In addition to research onboard the station, the ISS has turned into a primary avenue for CubeSats and other small satellites to reach Low Earth Orbit (LEO). Shortly after the station reached the new milestone, astronauts deployed several types of CubeSats from the Kibo lab module's airlock. More CubeSats are slated for deployment through Wednesday, contributing to a wide variety of research from students and scientists. The first component of the ISS, the Zarya cargo module, launched Nov. 20, 1998. Most recently, Bigelow Aerospace launched a commercial module known as the Bigelow Expandable Activity Module (BEAM), which could pave the way for other habitats in space.

Iran to Launch Mesbah Satellite Soon: Official

Head of the Iranian Space Agency (ISA) Mohsen Bahrami announced on 10 May that the country will launch the indigenous "Mesbah" satellite into orbit in the near future, adding that a new version of the satellite is also under construction. Addressing a specialized meeting of high-ranking officials of ISA in Karaj, west of Tehran, Bahrami said that the Mesbah2 (Lantern) and "Nahid" satellites are under construction. He added that the domestically-made Mesbah satellite is ready to be launched into the orbit. Referring to Iran's achievements in the fields of satellite and satellite carrier, Bahrami announced that "Amir Kabir", "Zafar (victory)" and "Doosti (friendship)" are three other satellites which are also under construction and will be soon sent to the space. Iran successfully launched into orbit its first indigenous data-processing satellite, Omid (Hope), back on 2 February 2009. As part of a comprehensive plan to develop its space program, Iran also successfully launched its second satellite, dubbed Rassad (Observation), into the earth's orbit in June 2011. Rassad's mission was to take images of the earth and transmit them along with telemetry information to ground stations. The country's third domestically-built Navid-e Elm-o Sanat (Harbinger of Science and Industry) satellite was sent into orbit in February 2012. In January 2013, Iran sent a monkey into space aboard an indigenous bio-capsule code-named Pishgam (Pioneer). And later in December 2013, the country's scientists successfully sent a monkey, called 'Fargam' or Auspicious, into space aboard Pajoheshan (Research) indigenous rocket and returned the live simian back to earth safely. - Tasnim

Intelsat Orders New Communications Satellite from SSL

Intelsat has selected Space Systems Loral (SSL) to provide a new satellite for broadband networking and video distribution services in Africa, Europe, the Middle East and Asia. The new satellite, Intelsat 39, is a replacement for the Intelsat 902 satellite, which launched in 2001 and was also from SSL. Intelsat 39 will have both C-band and Ku-band transponders and will be located at the 62 degrees east longitude position. The spacecraft will be based on the SSL 1300 platform, and will use both electric and chemical propulsion for orbit raising, followed by all-electric station keeping once in orbit.

Facebook, Eutelsat Tap Hughes for Jupiter System to Provide Internet in Africa

Eutelsat and Facebook have selected Hughes to supply its Jupiter system as the technology platform for the satellite broadband services that both companies are preparing to launch in Sub-Saharan Africa. The Jupiter System, which Eutelsat purchased, includes three gateway stations, two centralized data centers, a comprehensive network management system and an initial number of user terminals. Facebook and Eutelsat are assembling a dedicated infrastructure for cost-effective broadband to areas of Sub-Saharan Africa beyond reach of fixed and mobile terrestrial networks. The companies plan to use high-gain Ka-band spot beam capacity on Spacecom's Amos 6 satellite, which is due to enter service in early 2017. For Facebook, the system will support its Express Wi-Fi project, intended to expand connectivity to underserved locations by working closely with operators, Internet Service Providers (ISPs), and local entrepreneurs. Eutelsat plans to employ the system as a key platform to drive growth of premium consumer and professional Internet connectivity services in Sub-Saharan Africa. Hughes Jupiter System includes lights-out operation, an enhanced air interface for bandwidth efficiency, and high-throughput terminals, to enable high capacity and efficiency for satellite broadband implementation. The foundational technology is the Jupiter System on a Chip (SoC), a custom-designed Very Large Scale Integration (VLSI) processor employing a multi-core architecture and enabling more than 100 Mbps of throughput on every terminal in the Jupiter family.

EE inks satellite mobile backhaul deal with Avanti

Avanti Communications Group, which provides satellite data communications services in Europe, the Middle East and Africa, has announced that it has won a contract to supply UK mobile giant EE with satellite capacity for cellular backhaul. Avanti will connect a number of cell sites across the UK to EE's network using the HYLAS 1 and 2 satellites, to provide communications in remote areas and increase network resilience. The first phase of this multi-year contract has an initial value of USD29 million, plus options to double the capacity. Mansoor Hanif, Director of Radio Access Networks at EE, commented: 'We are delivering a highly resilient, truly nationwide 4G network, and Avanti will play a key part in providing resilience and extending this network into rural areas.'

Inmarsat Revenues Down for Q1 2016

Inmarsat revenue for the first quarter of 2016 was $298.6 million, down 2 percent or $6.2 million, from the first quarter of 2015. Revenue in maritime and enterprise services decreased by $6.7 million and $4.9 million, while government and aviation increased by 1.9 million and $4.1 million, respectively. "Many of our markets face short-term headwinds which intensified in the first quarter, leading to a softer revenue performance than expected, although we remain highly competitive in each of our core markets, growing market share and diversifying the business to plan," said Rupert Pearce, Inmarsat's CEO. Inmarsat said the foundations for future double-digit revenue growth are largely established, with its Global Xpress (GX) High Throughput Satellite (HTS) network now globally operational. The company still anticipates annual GX revenues of $500 million by the end of 2020, though this is to be updated in due course for revenues from I-5 F4 when the business plan for the un-launched satellite is confirmed. Inmarsat said that, for operational reasons, the increase in GX revenues is proceeding more slowly than previously expected. Combined with market challenges, the company is revising its guidance downward by $50 million for 2016 to between $1.175 billion and $1.25 billion. "Whilst in the near term business growth will continue to be challenging in choppy markets, we remain very well positioned for future growth and diversification, and indeed I remain confident that the foundations that we are establishing will deliver the expected medium term growth," said Pearce.

Delta Ups 2Ku Commitment to 600 Aircraft

Delta Air Lines has increased its commitment to Gogo's satellite-based 2Ku In-Flight Connectivity (IFC) technology to more than 600 aircraft from 250 aircraft committed last year. The space-based solution went live on its first aircraft for Aeromexico's fleet just last month. 2Ku installations have already started on the 737-800 and A319 fleets, and Delta will retrofit additional fleets with the new system. The airline will operate more than 35 aircraft with 2Ku by the end of 2016.

Liquid Telecom Leases Capacity on Eutelsat 7B for Broadcast and Enterprise Services

Liquid Telecom has entered a multi-year agreement with Eutelsat to use multiple transponders on the Eutelsat 7B satellite. The independent data, voice and IP provider has purchased the capacity to support both enterprise solutions and broadcasting services for pay-TV. Satellite complements Liquid Telecom's pan-African terrestrial network and enables the company to provide seamless services across Africa. Liquid Telecom is the broadcast service provider for Africa's largest new pay-TV provider, KwesétTV, which has exclusive rights for major sporting events including the English Premier League Free-to-Air (FTA) and the NBA League. For broadband customers, Liquid Telecom's satellite service offers speeds of up to 50 Mbps. Liquid Telecom keeps 97 percent of its satellite traffic within Africa, with traffic outside the continent routed via its hub in London. Customers include Africa's largest Mobile Network Operators (MNOs), Internet Service Providers (ISPs), corporations, financial institutions, governments and others. Liquid Telecom uses satellite to connect a growing number of enterprise customers located in areas where fiber is not available.

Thuraya Teams with Elcome International for Maritime Maintenance in GCC Region

Thuraya has entered an agreement with Dubai-based marine solutions provider Elcome International to offer technical support to the operator's service partners throughout the Gulf Cooperation Council (GCC) and Egypt. The new contract enables faster response times to requests from service partners needing maintenance work, fault rectifications, and the installation of Thuraya maritime equipment. At agreed rates, Thuraya's service partners can call on Elcome engineers to avoid extensive downtime in the event of equipment problems. Thuraya reports its maritime business is growing substantially. Last year the company expanded its maritime product portfolio with Atlas IP, a terminal enabling Internet access and connectivity for managers and crew. According to Thuraya, the agreement with Elcome follows an increase in regional customers signing up for satellite services. "Our expanding maritime portfolio requires support whenever and wherever a vessel needs it. Our maintenance partner will store spare Thuraya equipment for vessels in locations that are difficult for our partners to reach. In the long-run, this new agreement will save our partners time and money," said Keith Murray, product manager for maritime at Thuraya.

Eutelsat 65 West A now fully functional

The EUTELSAT 65 West A satellite, launched on 9 March, is now fully powered up and ready for service across Brazil and Latin America. The satellite is designed to target markets across Latin America and its Ku-band payload is optimized for direct-to-home (DTH) reception. It also features transatlantic C-band coverage for cross-continental video contribution and distribution. Eutelsat is anchoring EUTELSAT 65 WEST A in the Brazilian broadcasting market with an antenna seeding program designed to ensure that pay-TV and cable operators across the country are equipped to receive channels delivered by the new satellite. Already Eutelsat and Space Systems Loral (SSL) have successfully carried out transmissions in Extremely High Frequencies (EHF) using an experimental payload flown into space on the craft. In order to strengthen support for clients in the Americas, Eutelsat has opened a network operations centre (NOC) in Santana do Parnaiba in the state of Sao Paulo. The teleport hosting the NOC is also equipped with resources for telemetry, command and ranging (TCR) of EUTELSAT 65 West A and will include radiofrequency and video monitoring tools for service quality assurance of C, Ku and Ka-band services provided through seven Eutelsat satellites providing coverage of the Americas.

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