SAMENA TRENDS

EXCLUSIVELY FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

A SAMENA Telecommunications Council Newsletter

Exclusive Interview

Khalid Ahmed Balkheyour
President and CEO
Arabsat

Page 04

The future of satellite broadband and the need for innovative spectrum management solutions

SAMENA TRENDS

CONTENTS

EDITORIAL

REGIONAL PERFORMANCE

04.
EXCLUSIVE INTERVIEW

Khalid Ahmed Balkheyour
President and CEO
Arabsat

73.
SAMENA COUNCIL ACTIVITY

Beyond Connectivity 2015
11th May 2015

The future of satellite broadband and the need for innovative spectrum management solutions

In the SAMENA region, where satellite broadband is growing, the demand for applications such as digital content, cellular backhauling, and satellite TV, is expected to further fuel the growth of satellite broadband. Satellite broadband subscriber-base appears to continue to grow over the next few years with services such as video-on-demand, Internet TV, data, VoIP and cellular backhaul. How the satellite operators will manage to tackle this situation and to get maximum return on investment is an important area that needs attention. Globally, the number of subscribers to satellite broadband is expected to reach 6 million in 2020.

Traditional satellite technology uses a broad single beam to cover entire continents and regions. The industry has more recently witnessed the use of multiple narrowly focused spot beams and the reuse of frequencies has resulted in spectral efficiency thus increasing bandwidth as compared to traditional satellites. The satellite broadband systems based on the Ka band deploy spot beam technology, where satellite downlink beams cover an area of the order of hundreds of kilometers. This enables frequency reuse, resulting in a considerable increase in the overall capacity of the satellite. Latest satellite broadband systems are being tailored for target markets to reduce bandwidth costs and increase capabilities to keep pace with the increasing subscriber-base. With the growing number of subscribers, and the emerging applications, the demand for demand for capacity is expected to grow too. An increasing number of operators are thus eyeing the Middle East and North Africa. The Operators are investigating

different means such as alliances, sales partnerships among others, to get maximum business from the high growth markets within the SAMENA region.

According to Satellite Industry Association's figures, commercial communications satellites represent over 37 percent of the total number of satellites. With a number of international players looking into the regional markets for investment in satellite industry, the satellite broadband sector is expected experience considerable growth. Consumer satellite broadband revenues have increased from US$68 billion in 2008to almost US$100 billion in 2014 showing an ample growth. Demand for satellite capacity is evolving and operators are thus exploring new ways to offer satellite broadband services in an efficient and cost effective way.

We at the SAMENA Council have always been cognizant of the significance of satellite broadband industry and have a very active working group (Satellite) on this very subject so as to provide a prolific platform for knowledge, experience sharing, and collaboration in light of the growing demand in the regional markets. The purpose of the Satellite working group is to take a leadership role in developing and shaping the emerging technologies for the satellite communications industry in the SAMENA region in the interests of the Council's membership as well as the overall industry.

Yours truly,

Bocar A. BA
Chief Executive Officer
SAMENA Telecommunications Council

Khalid Ahmed Balkheyour
President and CEO
Arabsat

Mr. Balkheyour has over 30 years of experience in the telecoms industry, Khalid Balkheyour has held the role of the President and CEO of the Arab Satellite Communications Organization (ARABSAT) since 2003. He came to Arabsat from Lucent Technologies where he was the Executive Vice President for Marketing and Sales from 1999 to 2003. Prior to that, he was the Vice President of Operations and Maintenance in the Saudi Ministry of PTT, later known as Saudi Telecommunication Company (STC). He holds Master degree in Electrical Engineering from California State Polytechnic University Pomona in 1981. He serves as Vice Chairman of the Board at Thuraya Telecommunications Company.

Q. What change have you seen in the developments and evolution of the satellite industry in the past 5 years? Is the industry keeping up the pace of its progress?

A. Major developments in the satellite industry in the past five years took place in services business modeling and manufacturing and launching, for example:

- More satellite companies of national interests
- Cooperation and agreements between satellite operators to reduce cost
- Consolidation trends are picking up
- Electrical/Hybrid propulsion
- High throughput satellites
- Hosted payloads
- We have also witnessed market price degradation by 25% to 30% from industry peaks in 2010-2013.

Q. What is Arabsat looking for in its future satellites as well as how does the company plan to make best use of future assets?

A. Arabsat has now two satellites under manufacturing; Badr-7 to be launched in Q4, 2015 at 26deg E, and HS-3 (joined satellite with Inmarsat) to be launched end of 2016 at 39deg E. Arabsat has also awarded two new satellites' contracts recently, HS-4 (Joined Satellite with King Abdulaziz city for Science and Technology in Saudi Arabia) at 39deg E and Arabsat-6A at 30.5deg E. Arabsat satellite fleet will reach 11 satellites by 2018.

All of Arabsat new satellites incorporate Ka-band for enterprise data and broadband in the Middle East and Africa with a number of hosted payloads and commercial partners.

Arabsat will also continue to maintain its efforts to enhance and promote its video neighborhoods at 26deg E for the MENA and 39deg E for Europe through its Hellas-sat subsidiary.

Q. What initiatives have you taken so far that are aimed at speeding up the resolution of interference and improving the quality of service for satellite communications users?

A. Arabsat is an active member of the IRG group and continues to play a major role in creating awareness in the industry. Arabsat is participating in the Carrier ID initiative and its expert engineers are certified examiners and trainers at GVF to train and certify SAT engineers on the best industry standards for handling SAT equipment and accordingly minimize the unintentional interference.

As for the intentional interference, Arabsat has participated in different industry groups fighting against jamming and has brought the issue up in all relevant national and international bodies.

Arabsat was recently selected as a member of the Board of GVF and look forward to continue working with industry stakeholders on all related matters.

Q. Arabsat and CeTel recently joined hands in extended C-band partnership in Africa; please tell us more about this joint venture.

A. CeTel and Arabsat has been working together for the past 10 years to provide robust enterprise and data solutions to businesses across MEA region. Both Arabsat and CeTel have developed an affordable and wide coverage service for data services through a new hub based at CeTel premises in Germany to utilize Arabsat-5C satellite at 20deg E, expanding customers' options for service provisioning.

Q. Which one of Arabsat's services has a major chunk in boosting revenue streams?

A. Arabsat has a balanced mix of telecom and broadcasting services. Arabsat 26degE hotspot remains as a major revenue streamline for Arabsat with a neighborhood constituted of 500+ TV channels, 80+ HD channels, 200+ radio channels, Pay- TV networks.

Arabsat African operations constitutes another major streamline of revenue across Arabsat fleet with big number of C-band transponders deployed in African coverage.

Q. Do you believe that IPTV growth depends on the development of fixed broadband infrastructure only or Satellite Broadband has a role to play also?

A. Arabsat has recently launched its HBB TV platform in cooperation with Selevision at its video neighborhood at 26deg E. Arabsat servers are located at both Jordan Media City and Overon in Spain. We target providing value added services to our customers that would enhance the end viewer experience. We believe that infrastructures complement each other and everyone has its own role to play.

Q. Do you think that there is a significant difference of bandwidth demand between the SAMENA region and other parts of the world?

A. The global trends are almost the same. The differences depend on the specific markets that are being served by each satellite operator and how the satellite operators can bypass the supply Vs. demand trends through their business development and sales activities, However, the market prices has degraded by 25-30% over the past three years.

Q. How do you look at C-band spectrum allocation in the Arab States? Up to which extent you see that this band could be used by mobile operators especially as mentioned in a recent report prepared by Frontier Economics, saying that using just the lower portion of the C-band (3.4-3.8GHz) for mobile could generate at least USD 7.6 billion for the Arab States economies. What are your thoughts on this?

A. Arabsat is actively participating with industry groups fighting against this direction. We have seen that telecom operators are not efficiently using their available spectrum as different case studies have shown. We believe that C-band is crucial for the development of many regions especially in Africa and our region. The revenue scenarios built by telecom operators to convince governments are exaggerated and don't account for the opportunity loss of development of the those countries' communities only possible through C-band. We go to the WRC, 2015 united as an industry and we have prepared very well for what is coming. The ITU needs to look carefully at the exact needs of each region and make its decision accordingly.

Q. Can you please share with us some of the Arabsat's key projects or upcoming ventures that are under focus?

A. Arabsat has acquired Hellas-sat in 2013 to acquire new resources and access new markets. Arabsat is building its strategy around expanding its business to Asia and neighboring regions and extending its service portfolio.

Arabsat has signed a partnership agreement with Inmarsat to launch a joint satellite together named HS-3 and the deal was announced in June 2014. Arabsat has also signed a joint satellite agreement with KACST on HS-4. Arabsat is currently working on few more deals and will be announced in due time.

Q. Do you think that HD channels are the major force behind fueling the satellite broadcasting throughout the region?

A. Arabsat certainly believes so. Our cooperation agreement with E'shailsat will fuel HD content at our location at 26deg E with exclusive HD content. Arabsat has also launched My-HD light Pay-TV platform based on HD. Now, more than 80 HD channels are transmitting from 26deg E neighborhood.

Consumer Satellite Services Revenue Growth (US$ Billions)

Consumer Satellite Services Revenue Growth (US$ Billions)

Year	Satellite TV	Satellite Radio	Satellite Broadband
2008	$68.10	2.4	0.8
2009	71.8	2.5	1
2010	76.9	2.8	1.2
2011	88.4	3	1.2
2012	88.4	3.4	1.5
2013	92.6	3.8	1.7
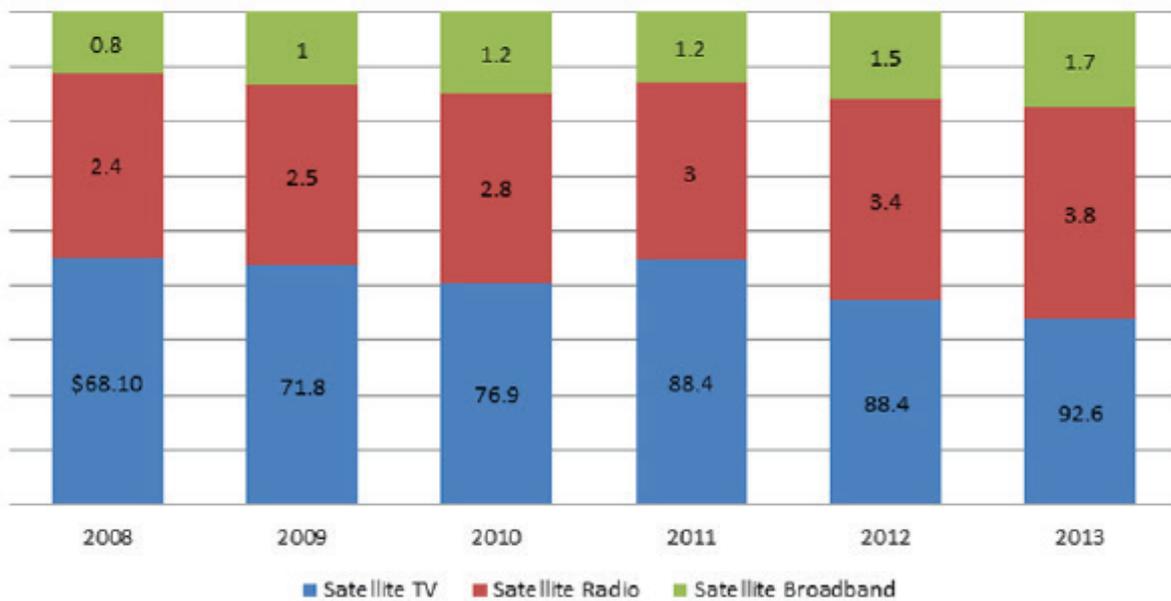
Data Source: Satellite Industry Association (SIA), Statista
Image Source: SAMENA Telecommunications Council

Consumer Satellite Services Aggrigate Revenue Growth (US$ Billions)
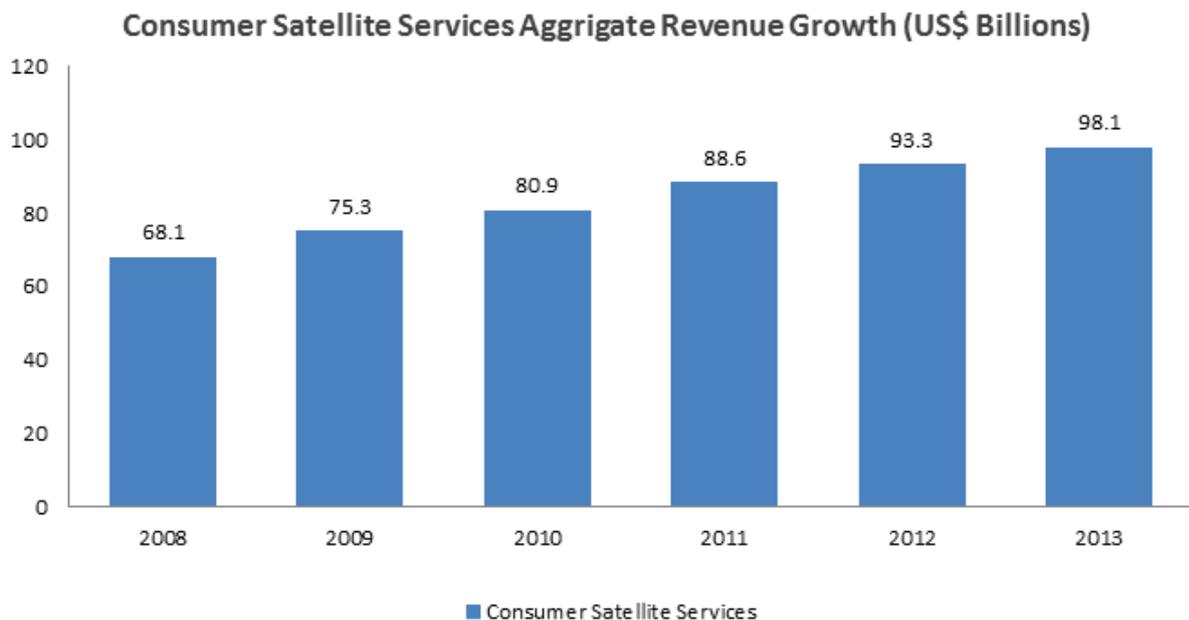
Consumer Satellite Services Aggrigate Revenue Growth (US$ Billions)

Year	Consumer Satellite Services
2008	68.1
2009	75.3
2010	80.9
2011	88.6
2012	93.3
2013	98.1

Data Source: Satellite Industry Association (SIA), Statista
Image Source: SAMENA Telecommunications Council

MEMBERS NEWS

MEMBERS UPDATES

Etisalat organizes workshop for government entities; highlights key technology trends and solutions

Etisalat shed light on the latest technology trends to the government sector at its workshop recently held in Abu Dhabi. The workshop had more than 100 representatives including IT Managers. Etisalat experts highlight opportunities for government entities of the UAE in view of upcoming IT and telecom trends and requirements of the nation. Among several topics, improving security, increasing IT efficiency levels and the transition to smart government model were the key focus of the event. The workshop also saw discussion on Etisalat's latest solutions and products offered to meet these requirements, including Cloud Services, Managed Services, M2M solutions, data centers, e-security services, e-commerce, solutions for smart cities and electronic payment solution. The workshop was held in line with Etisalat's strategy to align with the technological needs of the government. It created a platform for the telco to showcase its solutions in the field of ICT, including a portfolio of Managed Services that provide organizations with enhanced value-addition.

Omantel to showcase innovative solutions and offers with major presence at comex

Omantel is geared to showcase a set of new innovative solutions, products and offers that are focused on providing customers with enhanced experience throughout this year's COMEX with a major presence in the Shopper and Corporate areas of Oman's biggest annual exhibition of telecommunications and information technology. During the 5-day event the company is set to reveal a number of exciting new offers for both its individual and business customers as Oman's leading Telecommunications Company uses this major ICT show to engage and interact with its customers. The Business and Shopper stands will be staffed throughout the week by a team of enthusiastic Omantel representatives who are looking forward to meeting existing and potential customers and introducing them to new and existing solutions, products and offers and a range of stunning gadgets. Among the most exciting announcements will be the reveal of a major new advanced technology that is expected to change the telecom landscape and innovative that can help customers experience the real value of Omantel home broadband as well as the introduction of a range of new

solutions and products for individual and business customers. Haitham Al Kharusi, Vice President of the Consumer Business Unit said: "COMEX 2015 provides us with a superb platform to meet our customers face to face and present them with a number of innovative new products and services. "They can also experience a range of innovative fixed, mobile and internet services and have the opportunity to meet our team and learn more about the new technological advancements and how to experience the real value of Omantel home broadband". In addition to individual consumers, Omantel will also be showcasing its extensive offers to the business sector during COMEX. Todd Dick is Vice President of the Corporate Business Unit and commented: "We are looking forward to this year's event and the opportunity to meet our existing and prospective corporate customers face to face. "Oman's biggest annual ICT gathering is a unique opportunity for our rapidly growing corporate business unit to showcase the full range of our innovative and highly sophisticated services that add value to businesses and are able to handle the requirements of any size. Our technological expertise, qualified staff and years of experience make Omantel the undisputed market leader in the business sector." Omantel is also promising a number of surprises and exciting and innovative activities in and around their exhibition areas during COMEX 2015 that are set to excite visitors of the event.

PTCL upgrades business intelligence system to enrich customer experience

Pakistan Telecommunication Company Limited (PTCL) has deployed a state-of-the-art Enterprise Data Warehouse and Business Intelligence system. This system will enable Company to proactively understand customer requirements and serve them in a more efficient manner through delivering an enriched experience as per international best practices. The upgraded system will further improve PTCL's service delivery platforms and add substantial value to overall customer experience. Raed Abdel Fattah Chief Information Officer PTCL said, "PTCL has partnered with Teradata in this strategic endeavor to develop

insights into customer behaviors and use these insights to develop offers and services to meet customer needs." Khuram Rahat Managing Director Teradata Pakistan said, "This is just the start of a long and productive partnership where we will continually engage with PTCL business teams to deliver more value through deeper insights and analytics."

du awards top 3 glo-tastic runners from NEORUN

Over 4000 Neo Runners braved ten energizing and surprising NEO zones, and their faces and clothes were covered in neon UV paint in the process, as they participated in the night-time NEORUN, the first ever production of its kind in the Middle East. Today, du spread extra cheer by announcing 3 winners from its social media campaign to support NEORUN. As partners to the event, du ran a competition on social media asking contenders to share their most creative pictures at the run, with the du brand colors, using the hashtag #everystepcounts. The three sporting the maximum amount of blue on their faces and bodies received an 'Every Step Counts' gift box, including a trophy and an iPod touch. Of the 70 entries, the three lucky winners chosen by du were @rami_ali19, @Afroman_elgrande, @kareim242. "We are proud of our enthusiastic and committed du employees, who joined the other colorful runners in navigating the unique and surprising NEO zones. The whole event was incredibly inspiring, everyone enjoyed being active and crossed the finish line with a smile on their face," said Hala Badri, Executive Vice President, Brand and Communications, du. "By partnering with unique events such as NEORUN, du is able to lead the way in achieving its vision of motivating people to create a better tomorrow for themselves and their country by always making fun lifestyle choices." "To see the 4000 glowing NEO runners walking, jogging and running around the 5K track was a fantastic sight to see. They lit up the Autodrome with their glowing gear and paint!" said Pach Ang, CEO, Founder and Managing Director of REDFILO Events. "NEORUN is for all shapes and sizes. Our goal is to support and motivate healthy lifestyles, and by partnering up with du we were able to successfully send that

wonderful message across. You don't have to be a professional runner, you just have to know how to have fun!" To encourage a healthy lifestyle through its Every Step Counts initiative, du has been organizing and participating in several entertaining events aimed at promoting a healthy lifestyle through fun experiences. Smartphone users can download the du Wellness App and adopt it into their everyday health and fitness routine.

Star India selects Accenture for digital distribution

Star India, one of India's entertainment broadcasters, has selected Accenture to help develop, launch and deliver its over-the-air programming to India's online, multiscreen consumers. The hotstar service is built on the Accenture Video Solution (AVS) software platform, and will be funded primarily through advertising, using the platform's new digital advertising functions. It will have a catalogue of more than 45,000 movies and television series. Leveraging AVS, Star can deliver broadcast-quality content to consumers on a wide variety of devices over Wi-Fi, 4G, 3G and 2G networks, including those with limited bandwidth resources such as 2G feature phones. "With hotstar, our ambition is nothing less than the establishment of a whole new model for on-demand video consumption in the world," said Sanjay Gupta, Star India COO. "We will drive dramatic innovation on this platform with benefits for both users and advertisers. Accenture has been a valuable partner in this effort. They are walking side by side with us in creating this compelling platform, bringing the best of their product and technology expertise to the table. Together, we will establish compelling new benchmarks in the over-the-top space."

In addition to service delivery, Accenture is managing the hotstar operations using the client's on-site team in Hyderabad and Accenture's Global Video Operations Centre in the Philippines. "By creating a digital video service available on multiple screens, Star has secured its status as India's most advanced next-generation content provider," said Ashish Khanna, managing director for Accenture's Communications, Media & Technology operating group in India. "It is one of the first services globally to offer entertainment, movies and sports on a single platform for free while enabling new consumption models. This provides consumers access to a rich

catalogue of content delivered online with interactive advertising formats that provide multiple opportunities for content monetization by Star's advertisers and we're excited to be Star's delivery partner."

Huawei Smartwatch to arrive middle of the year

Huawei has already introduced its entry to the smartwatch arena at the Mobile World Congress early last month. We were able to get our hands on the company's first Android Wear watch and we were impressed that it doesn't look too geeky. It actually looks like any ordinary round watch. If it weren't for the digital display, you'd think it's just your average everyday watch. The Huawei Watch has a potential to become a bestseller because of its classic design but we don't know when it will be released exactly. When asked on Twitter when the smartwatch will be available, Huawei UK (@HuaweiUK) replied it will be "around the middle of this year". It

could mean June or during summer—in the UK. The answer seemed vague to the person who asked the question so he commented that maybe he should just buy a Moto 360. Huawei UK knows the smartwatch is coming soon but no official UK release date has been given yet. Huawei could only be giving an estimate but we're certain it will be this year. The Chinese company shouldn't let this year be over without any sign of the smartwatch or else fans will go ahead and buy other options already available.

Here's a quick review of the Huawei Watch specs so you'll have an idea if this is something to be excited about: 4GB storage, 512MB memory, Bluetooth 4.1 connectivity, 1.4-inch round faced touchscreen, 400x400 pixel display, 286 ppi resolution, built-in heart rate monitor, and 6-Axis motion sensors. The smartwatch will also come with a magnetic charging station. No mention on availability and

battery life but it should be able to last the whole day. As for the pricing, German retailer Billinger said it will cost 349 Euros which is around $370. The gold edition is said to be more expensive by 50 Euros.

HRDF honors Mobily for Saudization

The Human Resources Development Fund (HRDF) rewarded Etihad Etisalat (Mobily) Company in recognition of its efforts in attracting and maintaining functional national cadres as well as allowing career progressing and salary increase. Mobily confirmed that this award is an incentive to attract more national talents and promote the localization ratios and Saudization plan in the company in addition to the graduation of leaders working in the Saudi market. Melfi Al-Marzoki, senior executive officer, HR Center of Excellence, received the award on behalf of Mobily in the presence of HRDF officials Omar bin Meezan Melibari, DGM for customer care, and Muhammad bin Abdullah Al-Absi, GM for Riyadh region.

The Nitaqat Saudization program aims to stimulate private sector enterprises to raise Saudi workers' wages and to hire more jobless Saudis, as well as to upgrade the classification of their Nitaqat plans.

Mobily won formerly Prince Naif Gold Saudization Award several times as part of Mobily's strategy in raising the ratio of Saudization and the development of Saudi employees. This contributed toward providing a work environment that helped to increase productivity and enhance self-efficacy of the employee. The most prominent motivation provided by Mobily for its Saudi employees are the year-round continuous training programs, and provide the opportunities for employees who desire to continue their college education or get a master's degree or doctorate or any other specialized certificate. Mobily also offered leadership and professional development programs in collaboration with Franklin Covey Middle East Foundation.

Consequently, 100 employees already graduated and mastered the most prominent programs that will, by God willing, contribute to the development of the company's business in the long term, as well as raising the level of their competency. In this context, Mobily

presented a program of promising leaders, which included 60 candidates from the company's employees, 80 percent of them Saudis.

HBO GO available as standalone service in Hong Kong

Starting April 13, the public can subscribe to HBO GO, an over-the-top (OTT) service offering unlimited access to a vast library of HBO and CINEMAX Original content. HBO GO was first launched in Hong Kong in 2013 for now TV's HBO subscribers* free of charge. The significance of today's news is that the online streaming service will be extended to users without them having to commit to a TV package. HBO GO offers unlimited access to a vast library of more than 1,000 hours of HBO and CINEMAX Original content. As well as offering original HBO series such as the latest GAME OF THRONES season, HBO GO opens up access to self-produced films, documentaries, entertainment specials, family content and behind-the-scenes exclusives and previews.

Viewers can use HBO GO to watch award-winning and critically-acclaimed HBO and CINEMAX Original programming that includes mega-hit series such as THE SOPRANOS, BAND OF BROTHERS, ENTOURAGE and SEX AND THE CITY, as well as more recent series typified by SILICON VALLEY, VEEP, GIRLS, THE KNICK, TRUE BLOOD, TRUE DETECTIVE, THE NEWSROOM and more. No HBO GO content will be removed, so viewers can watch their favourite shows whenever and wherever the mood takes them. "The standalone OTT HBO GO service in Hong Kong now offers any viewer with an Internet connection access to their favourite HBO and CINEMAX Original content," said Mr. Jonathan Spink, CEO, HBO Asia. "HBO GO offers subscribers more choice and control over what they want to watch, when they want to watch it, and across multiple devices, whether at home or on the go."

Ms Loke Kheng Tham, PCCW's Executive Vice President of Pay TV, said, "We are excited about extending the collaboration between now TV and HBO, and pleased to provide HBO content beyond the TV space by offering HBO GO subscription on a standalone basis. Viewers simply need to download the HBO GO app and register with now ID to access the

HBO and CINEMAX Original library at anytime from anywhere." HBO GO can be downloaded from Apple's App Store for iOS devices, or from Google Play for Android devices, and the service is available for subscription for an early-bird offer of just HK$43* per month until June 29, and HK$88 per month afterwards.

Batelco Caters to Increasing Demand in Enterprise Physical Security

Batelco , the Kingdom's leading business solutions provider is constantly on the quest to expand its physical security portfolio in order to support the increasing security requirements for organizations across all sectors. The Bahrain market continues to see an increasing demand for innovative and managed security solutions. Physical security of property, data and equipment has become a prime concern for the public and private sector organizations of all sizes. Batelco 's suite of physical security solutions will give customers access to the full range of industry-leading physical security products. Batelco has established partnerships with well-known security providers, to meet the specific needs of different organizations and implement scalable, flexible and cost-effective physical security solutions. An increased focus on security is prompting enterprises and government agencies around the world to expand their use of video surveillance and other physical security technologies. The vast amount of data created by these systems is challenging organizations to effectively capture, analyze and store security data. Batelco 's Security Solutions benefit customers by denying unauthorized access to facilities, equipment and resources. Batelco 's Security Solutions are available on both sale and rental schemes and at very competitive prices. Batelco designed a flexible rental scheme that relieves its customers from the burden of heavy investments. The plan also offers Batelco 's support during the contract period as well as providing comprehensive assessment, design services, installation, testing and full after sales support - giving businesses peace of mind when investing in new solutions. Batelco's Security Solutions help safeguard businesses with security solutions that protect people, assets, operations and facilities.

With an exclusive focus on business protection, considerable time is dedicated to understand the organization's operations, identify internal and external threats, and design smart solutions to help businesses guard against loss of inventory, property, productivity, profits and assets. Batelco offers complete support in the analog-to-digital migration and management of legacy security systems, as well as the installation of fully wireless digital video network solutions. The solution spans the offering of video surveillance systems for small businesses, to enterprise video surveillance for hundreds of locations. Comprehensive video management software (VMS) platform for the Enterprise segment offers users a complete visual overview of the organization's surveillance installation with interactive maps revealing camera locations. Alarms displayed directly in the maps make it easy to quickly identify and address incidents throughout the entire system. If an incident occurs, efficient video search tools enable users to easily find relevant video clips and export evidence. Users with different skill levels and system access can view live and recorded video through three convenient, intuitive viewing interfaces. The provision of Physical Security Solutions positions Batelco as an end-to-end ICT solution provider offering customers with 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. Batelco has played a pivotal role in the country's development as a major communications hub and today is the leading integrated communications' provider, continuing to lead and shape the local consumer market and the enterprise ICT market.

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 furthermore, Batelco 's Business Enterprise team is capable of customizing its products and services to meet the specific needs of customers, bearing in mind the different industries and sectors they operate in.

Huawei & Higher Colleges of Technology Sign MOU to Bridge Digital Education Divide in UAE

With the advent of the UAE's knowledge economy, Huawei—a global information and communications technology (ICT) solutions provider—and the Higher Colleges of Technology (HCT) today announced a Memorandum of Understanding (MOU) to develop a range of Smart Education initiatives for its students in the UAE. The ambitious MOU outlines three programs implementing various E-education technologies designed to improve the standards of education and learning for HCT's students. Specifically, the partnership will see Huawei develop a Telecommunication Academy at HCT, establish virtual classrooms at its campuses and launch an ICT training exchange program at Huawei's HQ in Shenzen, China. Abdullatif Al Shamsi, Vice Chancellor of the Higher Colleges of Technology said: "The Higher Colleges of Technology maintains a commitment to excellence in education, and a hallmark of its learning model is the strong focus on successful student learning outcomes in technology and innovation, educating our students for the 21st century. We are therefore pleased to continue working with Huawei to create new ways of enhancing learning through the innovative uses of technology." Strengthening its commitment to developing the education sector in the UAE, Huawei will work closely with HCT to deploy its solutions at the institutions various campuses across the UAE. The ICT vendor is a strong advocate of helping educators empower youth by equipping them with the right knowledge and tools to help them grow professionally. Peng Xiongji, General Manager, Huawei UAE said: "This MOU is testament to our commitment to developing a true knowledge economy in the UAE and helping to offer more interactive learning for students. We are great believers in the power of technology and how the right technology tools can revolutionize education in the UAE. We are confident that through this MOU with HCT, we will make a make a measurable impact to the availability and quality of education for its students." Working alongside HCT to integrate it into

their curriculum, Huawei will launch a 'Telecommunication Academy', delivering a specialized training course that will offer students the opportunity to broaden their understanding in ICT field. Encompassing practical and theory components, the course will give students detailed hands-on experience in deploying Huawei's ICT solutions. The course prepares students for the Huawei professional training certification, which they will be eligible to apply for once they graduate from HCT and offers a clear transition from education to employment. Following the successful deployment of the Virtual Classroom program in 2013, which provided students and faculty access to a host of new digital tools for creating a more interactive learning environment, Huawei will extend its services to accommodate more students across all of HCT's campuses. Huawei's e-Classroom program extends the concept of 'borderless classrooms' and addresses the strategic challenges faced by distance learning as well as the managing and sharing of knowledge resources across multiple classrooms and campuses.

This will improve classroom learning experiences through support for real-time interactions via high-definition audio and video tools, convenient course recording and streaming, interactive e-whiteboards, and more immersive device applications. The third element of the Huawei MOU with HCT will see the launch of the ICT vendor's 'Seeds for the Future' education exchange program, which will offer 15 each year the opportunity to develop practical skills preparing them for a career in the ICT industry,

learning from Huawei's experts at its HQ in China. Developing a local talent pool of educated and technologically skilled individuals has become a leading priority in the UAE as the rise of technology-focused development continues to offer new opportunities within the regional ICT industry. The MOU outlines a programme for Huawei to provide technical training including workshops and technical training sessions on a range of ICT trending topics including next-generation networks, network architecture and implementation, VoIP, security solutions and cloud computing amongst others.

Cisco Acquires Data Center SDN Startup Embrane

Cisco said it will acquire Embrane, a Santa Clara, California-based software defined networking firm. Cisco made a strategic investment in the company last year, leading a $14 million Series C funding round. The acquisition is expected to close at the end of the current quarter. Terms of the deal were not disclosed.

Data center SDN startup Embrane's platform provides lifecycle management for application-centric network services. It provides layer 4-7 network services and helps bridge a larger transition to SDN. Embrane

will be integrated into Cisco's Nexus data center switch portfolio and extend Cisco's Application Centric Infrastructure capabilities. ACI is Cisco's proprietary approach to data center SDN. SDN helps make the network and its parts fluid. ACI is aimed at making the network responsive to application needs automatically. ACI communicates high-level application requirements to intelligent network hardware, which self-configures accordingly. There has been rising activity in Network Function Virtualization in particular, which replaces physical appliances with virtualized network functions like firewalls, load balancers, intrusion detection, and WAN accelerators. Embrane's Heleos platform deploys software-based appliances such as firewalls across a pool of commodity servers. "With agility and automation as persistent drivers for IT teams, the need to simplify application deployment and build the cloud is crucial for the data center," Hilton Romanski, Cisco's head of corporate development, wrote in a blog post.

Embrane will join Cisco's Insieme business unit, the foundation of which was the 2012 acquisition of Insieme a data center SDN startup Cisco itself founded. Insieme was acquired as part of the ACI effort, launched that same year in response to a growing SDN opportunity and formally launched in 2014. Embrane tech will feel at home at Cisco given the two companies have worked extensively together. Embrane's founders formerly worked for Cisco. Following funding, Embrane has added lifecycle management for a variety of Cisco products and expanded support for other third-party systems. "With this acquisition, we continue our commitment to open standards through programmable APIs and multi-vendor environments," wrote Romanski. "More importantly, we remain committed to the rich ecosystem of partners and customers in production through the automation of network services, cloud and system management orchestration, and automation stacks."

Ooredoo in first place with over 3.6 million subscribers

Ooredoo mobile operator has distinguished once again in Algeria through its 3G network. According to figures released by the ARPT (regulation of Post and Telecommunications Authority) Ooredoo ranks first with 3,607,541 subscribers on 30 November 2014. Figures released by the ARPT are estimations applied to the prepaid subscriber base declared by each operator. Ooredoo is followed by Djezzy with only 581,386 3G subscribers. Concerning Mobilis operator, ARPT has not validated the data provided by the operator considered incomplete. "The data provided by the operator on the final deadline of March 31, 2015 are incomplete. The Regulatory Authority has therefore not been able to complete the audit of its stated prepaid subscriber base on 30 November 2014," says the ARPT, adding that" the WTA and OTA operators responded in the time allotted to information requests sent to them for this purpose by the Regulatory Authority. The operation was conducted for them on time and led to audits that were expected."

PCCW Shares Surge after Government Awards Broadcasting License

PCCW Ltd. shares jumped by the most in 17 months in Hong Kong trading after the government awarded the company a free-to-air television broadcasting license. Richard Li's PCCW rose as much as 8.6 percent after the government Wednesday gave its unit a 12-year license to operate two channels that broadcast over the air. Shares of I-Cable Communications Ltd. also rose on optimism it will get final approval for its permit first granted in 2013. Hong Kong is seeking to retain choices in its non-cable television market after the government yesterday decided against renewing Asia Television Ltd.'s free-to-air license, leaving the city with one such broadcaster. Thousands had marched in protest in 2013 when the government rejected Hong Kong Television Network Ltd.'s application for a license. "We hope that HKTVE's entry into the free TV market will benefit our audience-at-large with more quality programming choices," Commerce Secretary Gregory So said at a briefing yesterday, referring to the PCCW unit. PCCW shares traded 6 percent higher at HK$5.08 at 9:48 a.m. local time. I-Cable rose 4 percent to 77 Hong Kong cents. Shares of Hong Kong Television Network plunged 9.6 percent to HK$3.03 after yesterday gaining on bets that it may invest in ATV. The government decided against renewing ATV's license because it failed to provide concrete restructuring proposals before a deadline, So said yesterday. This is the first time Hong Kong has decided against renewing a broadcast permit, he said. Owners of Asia Television, the city's first Chinese-language broadcaster, have been seeking investors as the company

struggled to attract advertisers and failed to pay wages to staff. The government's decision was announced after Derek Lai, a court-appointed manager from Deloitte Touche Tohmatsu, said on Wednesday that ATV's majority shareholders signed an agreement to sell to an investor, whom he didn't identify. Deloitte last night said it was "disappointed" about the decision after making every effort to find an investor.

SLA Mobile brings Direct Operator Billing to Microsoft's Windows Phone Store for Zain customers

SLA Mobile, in partnership with Zain Group is pleased to announce the launch of Direct Operator Billing for Microsoft's Windows Phone Store for Zain customers. Direct Operator Billing will allow Windows Phone users the ability to pay for digital goods and services by charging the transaction amount to their monthly phone bill or prepaid credit. This represents an exciting opportunity for SLA Mobile and Zain to work with a global brand such as Microsoft to bring Direct Operator Billing to Zain's Windows Phone users. Zain has launched Direct Operator Billing in partnership with SLA Mobile in Kuwait, Jordan and Bahrain with further rollout across the Zain Group to be completed within the coming months. Nic Stirk, CEO at SLA Mobile commented, "This is a great opportunity for us to work with a worldwide brand such as Microsoft to bring Direct Operator Billing to the Windows Phone Store for Zain's customers. It sets in stone the demand for quick and secure digital payment solutions such as Direct Operator Billing." Scott Gegenheimer, Zain Group CEO said: "The exciting world of mobile digital services is driving the mobile industry forward at the moment. By being one of the first telecom providers in the Middle East to launch a Direct Operator Billing service, this extension of agreement with SLA Mobile to include the Windows Phone Store reinforces our dedication to providing customers with the best digital purchasing experience on all major online stores in a safe and easy manner." With the rapid growth of e-commerce in Middle Eastern markets and the issue of fraud increasing, Direct Operator Billing gives users a secure alternative to pay for goods and services online without the need to enter debit or credit card details.

Vodafone Qatar CEO named Telecom Leader in GCC

Kyle Whitehill, Chief Executive Officer of Vodafone Qatar, has recently been named in the TOP CEO Awards and the leading CEO of the Telecom industry across the region. Organized by business publication TRENDS magazine in conjunction with INSEAD business school, the TOP CEO Awards

2015 ceremony paid tribute to business leaders whose success for their organizations is an instrumental factor in the continued growth of the region. The fifth installment of the annual program, TOP CEO 2015 honored business heads judged to have excelled in the field of leadership. Mediaquest, the media company behind the initiative, says that the scheme is the most credible of its kind in the region, as only leaders of the firms listed on the stock exchanges of Saudi Arabia, the UAE, Qatar, Bahrain, Kuwait and Oman are eligible for ranking.

Kyle Whitehill, Chief Executive Officer of Vodafone Qatar, said: "To me, the fundamental job of a CEO is not just to help your team create a vision, strategy and a plan - it is to engage, inspire, and motivate people across the organization. There can be no TOP CEO without a TOP team backing him or her each day. I therefore accept the honor of being in the TOP CEO Awards on behalf of Vodafone Qatar's talented and tireless team, without whom we would have never reached this stage. From telecommunications to banking and air travel, I am additionally proud to stand among a group of such distinguished global business leaders who are indeed shaking up their industries and shifting the centre of gravity toward this region as partners - not passengers - on its remarkable

economic journey." "About 5 years ago, we were extremely honored to be invited to bid for the second mobile license and consequently we were able to localize one of the world's biggest and most valuable telecom brands and privileged to be partnered with Qatar Foundation. There isn't a single global brand in Qatar which has localized itself as much as we did and we were the first and only global brand to list on the Qatar Exchange. This was a solid testament to our steadfast commitment to Qatar, bringing a wealth of local knowledge and experience together with our global credentials and track record." Whitehill added. "With Vodafone Qatar sitting at the heart of the largest mobile networks in the world, we were confident that our presence in the local market will help to change the competitive landscape, introduce world-class innovations and raise the bar of the industry; and that's exactly what we did and we keep on doing as we aim to empower every single one of our customers to be confidently connected by providing unique, worry-free experiences." continued Whitehill. Vodafone Qatar switched on its mobile network on March 1, 2009 and shortly after started delivering great value to its customers with a range of exciting products and services. Its cutting-edge networks infrastructure is the first green field networks project in Vodafone Group in the past 15 years. This places the company in a great position to develop, in the future, one of the world's only converged networks. Vodafone launched its fiber-based consumer and enterprise fixed-line services commercially in October 2012.

IBM InfoSphere DataStage achieves Huawei Ready™ Certification for Big Data compatibility

Huawei announced that IBM InfoSphere DataStage has achieved Huawei Ready™ status after the successful integration and interoperability test with Huawei FusionInsight. The result indicates that there is minimal risk involved for customers to deploy big data solutions by integrating Huawei FusionInsight with IBM InfoSphere DataStage.

IBM InfoSphere DataStage® is a core product module of the InfoSphere Information Server information integration platform, which offers universal data access to on-premise, cloud, mobile, and structured and unstructured data. It helps enterprises maximize business value from big data at any volume, velocity and variety, and enables them to obtain a building workflow capability that combines Hadoop-based activities defined via Oozie with other data integration activities.

Mr. Ren Zhipeng, President, IT Cloud Computing Product Line, Huawei, said, "We are pleased that IBM InfoSphere DataStage has qualified for, and will receive the Huawei Ready™ logo, and that it works effectively with Huawei's big data products. This will help enterprises acquire real valuable information from the torrents of data and gain insights on potential opportunities and risks. Huawei is committed to investing in the development of big data in the long term and dedicated to building the most extensive ecosystem with global partners." Ms. Ritika Gunnar, Senior Executive, Information Integration and Governance, IBM Analytics Platform, IBM, said, "IBM InfoSphere platform together with Huawei's FusionInsight platform helps customers get more bang for their buck from big data platform investment. By combining Huawei's smart Hadoop technology and IBM's proven data integration and data governance technology, the joint solution creates a market-differentiated enterprise class big data platform that leads in a highly competitive market. It enables customers to create enterprise-level smart data management solutions in the shortest time and lowers the cost of overall IT investment. IBM will continue work with Huawei to create innovative data integration and data governance big data solutions."

Huawei Ready™ is a big data compatibility certification program that validates the compatibility of partner products and solutions with Huawei FusionInsight. The Huawei Ready™ certificate demonstrates to customers that partner products and solutions meet the highest compatibility and interoperability standards set by Huawei and customers can be jointly supported by partners and Huawei.

REGIONAL NEWS

REGIONAL UPDATES

PTA holds Pakistan Mobile App Awards 2015 today

In order to encourage young innovators and entrepreneurs to develop new mobile applications, the Pakistan Telecommunication Authority (PTA) is going to hold Pakistan Mobile App Awards 2015, ceremony on April 27. Under the competition, the authority invited individuals from Pakistan to submit innovative mobile applications in six different categories, with an overall objective to promote the use of high-speed mobile Internet for the benefit of the society. The event would be held in partnership with Internet Society (ISOC) Asia-Pacific Bureau, cellular mobile operators and handset manufactures. All submissions to the competition were subject to pre-defined criteria including uniqueness, value to public, functionalities, sustainability and quality of the mobile application under agriculture, entertainment, kids, security and community and business categories. With over 100 entries received, Pakistan Mobile App Awards competition proven to be well acknowledged, reflecting a lively evolution of innovation in Pakistan duly supported after introduction of 3G/ 4G services in the country. The broadband Internet users in Pakistan are above 16 million that includes more than 12 million 3G/4G subscribers indicating huge market potential for new services and applications.

Zain Iraq applies for Baghdad share listing

Zain Iraq, the country's biggest mobile phone network operator by subscribers, has applied for a listing on Baghdad's stock exchange, parent firm Zain told Reuters, taking the first step in a long-delayed plan to go public.

Iraq's three mobile network firms were required to float a quarter of their shares and join the Iraq Stock Exchange, or ISX, by August 2011 as part of their 15-year licenses awarded in 2007. But so far only Ooredoo unit Asiacell has floated, joining the ISX in February 2013. Daily fines for not doing so are being levied against the other operators — Zain and Korek, the smallest of the three. Zain Iraq has "filed its first set of application documents for its initial public offering to the Iraqi Securities Commission [ISC]", a Zain spokesman said via e-mail. "This is the first step in the process of Zain Iraq fulfilling its mobile license obligations." Zain Iraq's application is subject to approval from the bourse and telecommunications regulators, Zain added. "They [Zain Iraq] have preliminary approval," Abdul Razzaq Al Saadi, the ISC's chairman, told Reuters. "There are some technicalities that need to be ironed out, such as the mechanism of listing and subsequent trading and some further requirements from Zain that they have pledged to sort out," Al Saadi added.

Once given final approval Zain Iraq will have two months to list otherwise its application will be void, Al Saadi added. Zain Iraq has proposed a different method than the book-building share offer process Asiacell used. Rather than selling shares before listing, Zain Iraq will join the ISX and allow bids from potential buyers on its first day on the bourse, a source familiar with the matter told Reuters. There will be no trades that day but Zain Iraq will take the weighted average of these mock transactions to calculate its opening share price when trading starts the following day.

Vodafone, MTN interconnect mobile money services in Africa

Customers in East Africa who are signed up to Vodafone Group's M-Pesa and those using South Africa-based MTN Group's MTN Mobile Money will be able to transfer money to each other, after the two companies reached a deal to interconnect their mobile money platforms. In a press release confirming the development, Vodafone Group said that the interconnect collaboration between what it termed 'the region's two biggest mobile money operators' will enable convenient and affordable international remittances between M-Pesa customers in Kenya, Tanzania, Democratic Republic of Congo (DRC) and Mozambique, and MTN Mobile Money customers in Uganda, Rwanda and Zambia. Under the terms of their Memorandum of Understanding (MoU), MTN Group and Vodafone Group will also share best practice and work together to define the rules and standards of mobile-based remittances in Africa.

Commenting on the development, Vodafone Director of Mobile Money Michael Joseph said: 'Our agreement with MTN to connect our mobile money wallets in East Africa is a fantastic example of co-operation and interoperability between competing mobile operators. By working together, we will deliver cheaper, faster money transfers, improving the lives of many people living in the seven countries involved.' MTN Group Head of Mobile Financial Services, Serigne Dioum meanwhile added: 'After successful launches in Ivory Coast and Benin in West Africa, we are looking enthusiastically at the collaboration with Vodafone in East Africa. Together, we aim to build a scalable model that will accelerate remittance roll-out across the continent.'

GBM, Diona team up to launch IT system for Labor Ministry

Gulf Business Machines (GBM), a leading provider of customized IT solutions in the Gulf, has signed a partnership with Irish mobile technology firm Diona following the first Middle East implementation of IBM Cúram, a social welfare management software solution, for Qatar's Ministry of Labor and Social Affairs (MoLSA). The program was launched in both English and Arabic. This is the first time it has been implemented in the Arabic language. Richard Bruton, Irish Minister for Jobs, Enterprise and Innovation, visited GBM's office in West Bay to attend the partnership signing with Diona, which creates mobility solutions that transform how people's health and human services needs are served around the world. The minister was accompanied by Patrick Hennessy, ambassador of Ireland, together with other Irish dignitaries. The MoLSA initiative meets world-class standards in serving its Qatari citizens' requests and requirements, namely families in need. It is the first program of its kind to be launched in the Middle East, and has instigated a commitment from both GBM and Diona to widening their partnership further, according to a statement. The ministry will now be able to provide an integrated online platform that provides MoLSA professionals and users with access to information, applications and services that will eliminate manual work, minimize error margins and, most specifically, facilitate the tasks of social care workers. As part of the deployment, dashboards were provided to the MoLSA management to support them in making accurate decisions and monitor projects development. Speaking at the partnership signing, Bruton said: "The Diona and GBM partnership is an excellent example of the possibilities of technology, and I look forward to seeing this new relationship grow. My visit to Qatar has shown tremendous opportunities for Irish companies such as Diona, and I am determined to support more companies to take advantage of these opportunities to create jobs at home." The GBM project team assigned with implementing the solution is an example of multicultural collaboration.

Encompassing nine different nationalities and including the first three Cúram-certified consultants in the Middle East, the team brings to the project a wealth of regional experience and has worked to complete the deployment in record time, the statement adds. Soubhi Chebib, general manager of GBM Qatar, said: "MoLSA has embarked on a project that will streamline and automate 11 social support programs running in the country. This is also the first time the system has been implemented in the Arabic language." Philippe Jarre, GBM CEO, said: "Our relationship with Diona will help play an even greater role in building enhanced electronic and mobile services for Qatar and around the Gulf." Brendan Flood, International Sales & Partnering manager, Enterprise Ireland - who is accompanying Bruton on the trade mission - said: "Enterprise Ireland is committed to growing Irish exports to the Gulf region to €6bn by 2020. It is through partnerships such as this one between Diona and GBM that this target will be achieved." The trade mission to Qatar, the UAE and Saudi Arabia, which has 63 Irish companies participating, continues until today.

Pakistan: Government to implement IT agreement

Ooredoo Global Services (OGS) has In order to promote IT trade, Ministry of Information Technology is considering options for the implementation of Information Technology Agreement (ITA), under WTO. In this regard, Minister of State for Information Technology chaired a meeting on Information Technology Agreement (ITA) with PRIME (policy research institute of market economy) a group of indigenous think tanks, here on Wednesday, said a handout. Federal Secretary IT, Member (Telecom), Member Legal, MD PSEB, CEO PRIME, Member Advisory Council PRIME and senior officials from MoITT attended the meeting. The meeting discussed ITA bilateral trade agreement under WTO which was concluded in December, 1996. Under this agreement the signatories has to eliminate the tariffs on a list of IT and telecom products. Pakistan acceded to this agreement in 2001-02 and, thus tariff on IT trade was eliminated but unfortunately, these reforms were revoked after a shorter period of time. Presently Pakistan is among the five countries which has highest taxes on the imports of the IT products including Custom duties ranging between 10 to 25pc, sales tax 17pc,

non-adjustable Income Tax 5.5pc. However if Pakistan eliminates the tariff for a list of IT and Telecom products, subsequently trade on IT products would increase manifold, which would bring major economic benefits in the long run. The volume and the growth of the sector would also be enhanced and our internet users' penetration may also increase from 11pc to 33pc. The Minister informed the delegates that IT ministry is already working on ITA and the main initiative lies with Ministry of Commerce and FBR. Secretary level meetings have already taken place in this regard and the engagement continues. Primarily, we have declared current year as a year of Information Technology, and have mandated PSEB to enhance the volume of IT export and to adopt measures for international visibility of Pakistani companies and products and we will make all efforts for the growth and development of IT sector so that it could maximize its contribution in overall GDP of the country under the vision of Prime Minister Muhammad Nawaz Sharif", Minister said.

Egyptian, Moroccan teams among winners in Zain startups competition

Teams from Egypt and Morocco have been named among the winners of the MIT Enterprise Forum Pan Arab competition organized by telecoms firm Zain. Teams from Lebanon, Jordan,

Saudi Arabia, and the United Arab Emirates (UAE) also made it onto the winners' stage, with contestants singled out for their innovative and creative startup ideas from 75 contesting teams from 15 Arab countries. The winners shared prize money amounting to US$135,000.

In the Ideas Track, Egyptian team Kotobna came out on top

for its solution that gives young talented authors an alternative method to publish and monetize their work. Another Egyptian team, Nano Ebers, was third in the track for its development of a high honey concentration and nano fiber structure that enhances antimicrobial effects and promotes moist wound healing.

In the startups track, Morocco-based Screen DY came third for their platform that offers any mobile developer the ability to build complex, custom, and native apps that work on all platforms within days. The top two places in the track went to teams from Lebanon and Jordan.

The Social Entrepreneurship Track saw three equal winners. Lebanese team Visualizing Impact, a citizen data journalism, was declared the winner alongside Moroccan product health and safety team La Perle de la Mer and Egyptian Tahrir Academy, which has built a blended learning platform that provides engaging learning experiences through combining world class and carefully localized teaching methods with the latest technologies. "I congratulate all the semi-finalists and winners for showing how progressive and dynamic their startup ideas are," said Scott Gegenheimer, Zain Group chief executive officer (CEO). "Much of the region's future development will be driven by young innovative people in technology, so Zain is especially proud to be fostering the growth of this competition. I'm confident that many of these teams will succeed in translating their ideas into successful projects."

Oman does not rank well in most telecom services, shows comparative study by TRA

A recent price benchmarking survey carried out by the Telecommunications Regulatory Authority (TRA) states that fixed broadband services in the sultanate are among the highest compared to other countries included in the survey. The study of retail telecom services compared the rates with GCC countries, Jordan, Tunisia, Malaysia and the UK and was conducted with the participation of the Sultan Qaboos University while Strategy Analytics Ltd, an independent consulting firm in the UK provided expert inputs. Omani telecom companies do not rank well in most of the services compared to their peers in the other countries included in the study. While rates for fixed voice

services are close to the average of other countries in the survey, fixed broadband services in the sultanate are among the costliest across all usage baskets except for medium speed. The same can be said for pre-paid mobile voice services. The study puts these rates well above the GCC price average. For post-paid and business services, the prices in Oman too are at the higher end. The study said that prepaid mobile broadband services in the sultanate are either below or close to the average compared to other GCC countries at low usage levels, but among the highest for post-paid and higher usage levels. When it comes to international calls from fixed line and mobile phones, Oman's position is good compared to the other countries studied. Calls from fixed lines are cheaper than those made from mobile phones. Despite a marginal decline in prices of some telecommunications services, the study finds that Oman's position compared to other countries did not improve in 2014 as compared to the results of 2012 study for most of the services. The study was designed to benchmark the prices of retail telecommunication services.

SIM verification program adds to PTCL's woes as profits plummet 83.5%

Fixed line incumbent Pakistan Telecommunication Company Ltd (PTCL), which operates in the mobile sector via its wholly owned subsidiary Pakistan Telecommunication Mobile Ltd (PTML/Ufone), has continued its downward trend, booking consolidated turnover of PKR30.18 billion (USD295.54 million) for the three months ended 31 March 2015, a fall of 9.6% year-on-year. The decline in revenue, combined with an increase in service and marketing costs – marginally offset by a dip in administrative expenses – led to a 70.4% y-o-y slide in operating profits to PKR1.75 billion. Net profit, meanwhile, dropped by 83.5% to PKR716.39 million from PKR4.35 billion twelve months previously. Much of the decline can be attributed to the operator's mobile arm, Ufone, which has seen a steady drop in subscribers since mid-2014, with its customer base shrinking from 24.35 million as at 30 June 2014, to 21.72 million by the end of February 2015. Its user base is expected to fall further as a result of the recent SIM re-verification drive, which reportedly led Ufone to block 3.86 million SIMs. The cost of the re-verification programme has also impacted the cellco's profitability, as

the operator was obliged to hire additional staff and to bear the cost of the biometric thumbprint scanners required for the project.

Previously, PTCL reported a 1.0% decline in revenue in 2014 to PKR129.92 billion, but the impact of a voluntary separation scheme (VSS) and rising costs and expenses across the board saw net profit for the year fall from PKR23.79 billion in 2013 to PKR6.19 billion.

Turkish operators test domestic 4G base station

A group of Turkish telcos and equipment manufacturers have developed a new 4G-enabled base transceiver station (BTS) ahead of next month's planned multiband spectrum auction, reports Hurriyet Daily News. The cell site, which is said to meet 'global standards', has been jointly developed by telecoms companies Netas and Argela and defense manufacturer Aselsan, and will serve Turkey's three GSM operators – Turkcell, Vodafone Turkey and Avea – all of which have signed an agreement to trial the BTS over a three- to four-month test period. As previously reported by TeleGeography's CommsUpdate, Turkish regulator the Bilgi Teknolojileri ve Iletisim Kurumu (BTK) has set a date for the upcoming frequency auction of 26 May; the tender will include 20 spectrum lots across the 800MHz, 900MHz, 1800MHz, 2100MHz and 2600MHz bands, while a block of 2600MHz spectrum will also be reserved for a new market entrant, although the newcomer will not be obliged to launch GSM services.

AWCC looks to bolster data revenue with new charging platform

Afghan Wireless Communications Company (AWCC) has selected Redknee Solutions to provide its Redknee Unified billing and policy solution, to help monetise its data services and to improve and expand the operator's range of value added and personalised services. According to the vendor, the new platform will give AWCC access to new business models and partnerships with over-the-top (OTT) providers. Commenting on the pact, AWCC managing director

Amin Ramin, noted: 'With Redknee's market leading integrated charging and policy control solution, Afghan Wireless is maximising the value of our network. Having recently launched 3G services, we are increasing our subscriber base, driving growth with advanced data services and providing superior quality of service to our customers. Redknee is enabling us to increase our market presence, to be more competitive, and to enhance the customer experience.'

Qatar IT market set for fast growth

The IT services market of Qatar is changing at a rapid pace. Qatar is expected to lead IT services spending in the region through 2018, according to International Data Corporation (IDC). IDC is the premier global provider of market intelligence and advisory services.

According to IDC's latest forecast, the combined IT services market of some of the countries in the region, including Qatar, Oman, Bahrain, and Kuwait, is expected to expand at a compound annual growth rate (CAGR) of 12.5 percent over the coming years to total $1.82bn in 2018. The global advisory services firm expects this growth to be driven by government-led infrastructure development projects, e-government initiatives, transformations in the transportation and banking and financial services sectors, and private sector developments as governments in the region pursue diversification strategies into non-oil sectors. "The willingness of CIOs to procure outsourcing services is increasing across the OGCC countries," says Eric Samuel, a senior analyst for IT services at IDC Middle East, Africa, and Turkey. "And we are now at a stage where CIOs are actively evaluating the capabilities of ICT service providers to build and operate their ICT environments. Some organizations are already reaping the benefits associated with these technologies, such as improved operational efficiency, reduced capital expenditure, and enhanced ICT management. And as the outsourcing services offered by ICT services providers mature over the coming years, we expect the adoption of such services to increase notably."

The IDC data shows that the OGCC IT services market reached a total value of $1.13bn in 2014, up 11.7 percent on 2013. Qatar presented the strongest growth in the region,

with IT services spending fuelled by large-scale, infrastructure-driven, and government-led projects in the transportation, healthcare, and education sectors. Qatar will continue to have the fastest growing IT services market of all the GCC countries, and IT services spending in the country will surpass Kuwait's total by the end of this year. Qatar is also expected to lead IT services spending in the region through 2018.

The competitive landscape in Qatar is changing at a rapid pace. An increasing number of global ICT companies are now competing with local ICT providers, either directly or through partners, as they strive to capitalize on the myriad ICT opportunities present within the country. However, this increasing competition is exerting downward pressure on project pricing, which is impacting the margins of many ICT providers in the region. ICT project pricing is also becoming more complex as greater numbers of organizations expect their ICT partners to develop and implement solutions that are capable of solving their specific business challenges rather than merely meeting their operational requirements.

IT services maturity has significantly improved in the region, and both public and private sector organizations are looking at implementing complex IT solutions while addressing the challenges associated with finding and retaining experienced in-house IT personnel," said Samuel. "As a result, organizations are expected to take a cautious approach to CAPEX outlays when implementing ICT solutions, and this is also expected to drive spending on hosting, cloud, and managed services over the coming years."

Third Arab Meeting on Digital Terrestrial Television Broadcasting Holds in Morocco

Egypt, represented by a National Telecommunication Regulatory Authority (NTRA) delegation, is taking part in the third meeting on digital terrestrial television broadcasting on 13- 16 April in Morocco which aims to pursue coordination on terrestrial television channels in the Arab region. The meeting is organized by the International Telecommunication Union (ITU) Radio communication bureau, in cooperation with the Arab Spectrum Management Group (ASMG). It gathers Arab countries

including Egypt, Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Iraq, Lebanon, Libya, Morocco, Tunisia, Oman, Yemen, Syria, Jordan, Palestine and Qatar. This in addition to some of the non-Arab neighboring countries.

The Egyptian delegation, comprising NTRA and the Radio and Television Union (ERTU) representatives, participates with the aim of efficient involvement and exertion of strenuous efforts in order to get best results to serve the country's national interests. Egypt will coordinate with Arab and non-Arab countries like Cyprus, Greece and Turkey in order to protect the Egyptian allocations and provide digital dividend bands that will be allocated to mobile and other services. Technical agreements necessary to carry out the registration of terrestrial TV channels are to be signed in that meeting.

Telecom operators urged to tap Big Data potential

Telecom operators must tap the benefits of Big Data analytics
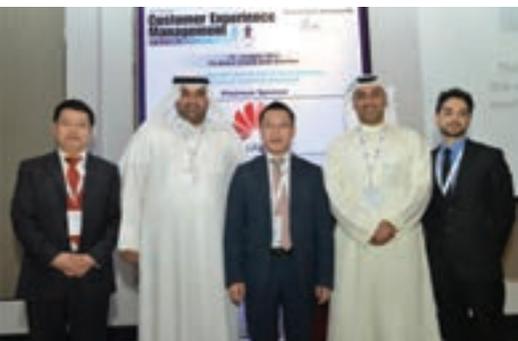
capabilities to understand the dynamics of service demands and packages verities to provide more contextual offers to the public, said experts at a recent forum in Dubai, UAE. Top industry authorities teamed up with Huawei, a leading global ICT solutions provider, to explore innovative ideas for operators to assure a superior customer-service experience and cope with the dynamics of a service-driven digital economy at the fourth annual "Customer Experience Management in Telecoms Middle East Summit". Summit participants were unified in their recognition that customer demands and

behaviors in the region are becoming increasingly differentiated, with the public looking for a superior service experience whether for business, entertainment, social media, or international roaming connectivity. Zhou Qingwei, regional vice president of Huawei Middle East, also shed light on how operators can derive further commercial benefits from their investments in customer experience management infrastructure. Such an approach implies creating agile platforms with more options for personalized user preferences, the use of predictive network benchmarking, and methods for improving resolution times through an orchestrated service operation center. "Customer experience management is a complex, evolving discipline. The public's requirements are evolving and the capabilities of modern ICT networks are also increasing. By enhancing our own SmartCare solutions, Huawei is committed to helping operators better connect to their customers and be better prepared to meet their needs dynamically; maximizing the value of their CEM investments," said Qingwei. During the summit, VIVA Kuwait was honored by industry organizers with the "Best CEM Culture Transformation Program" having utilized Huawei's SmartCare solution to help enable easy handling of a growing portfolio of data-rich communication offerings. A new generation of Customer Experience Management (CEM) platform is now being advanced within the Middle East to empower operators with a holistic approach to excel the quality of customer services. Huawei's own SmartCare framework enables operators to offer better subscriber experience and swiftly identifies subscriber concerns, a statement said. A strategic component of Huawei's professional service portfolio, the award-winning SmartCare solution has already been deployed for several tier-1 global operators and is currently under implementation for leading service providers in the Middle East, according to the statement.

GCC drives digital consumption

Zain Kuwait and equipment vendor Middle East consumers could spend around USD 37 billion on media content this year and USD 28 billion on smartphone upgrades as digital consumption soars in the region, particularly in Gulf Arab states. Management consultancy Deloitte Touche Tohmatsu said smartphone upgrades were expected to surpass

70-100 million units for the first time in 2015, generating between USD 18 billion to USD 28 billion in revenues. "The majority of upgrades will take place in the GCC, which has the highest penetration levels, whereas in large parts of North Africa, with much lower smartphone penetration, many will be new adopters, buying a smartphone for the first time," the consultancy said in a forecast of digital behavior in the region. The Middle East is adopting the latest technological advances that have permeated every aspect of our lives: from banking and interaction with governments to entertainment and work. Nowhere is this is more evident than in the so-called "Internet of Things" (IoT), which offers people the capability to remotely control multiple aspects of their lives, such as switching off lights at home via wearable devices, and enables a new generation of wireless machines to interact with one another, helping to connect entire grids and networks of cities.

IoT biggest revenue driver for telecoms

While companies have yet to completely harness the power of the technology, as much as 2.8 billion IoT wireless devices were shipped globally, and 25 million IoT devices are expected to be shipped to the Middle East this year alone. Regional adoption of IoT will continue to outpace global growth, and that trajectory will only move upwards as governments and companies invest in smart city developments across the Middle East, with Gulf Arab states taking the lead. The Middle East and Africa reportedly generated more than 30 exabytes (30 billion gigabytes) of cloud data traffic in 2013, and, with greater adoption of IoT, that figure is predicted to rise eight-fold to over 260 exabytes in 2018, generating the highest cloud data traffic growth in the world, according to Deloitte. "With IoT fuelling such high growth in data creation and cloud traffic, it is undoubtedly seen as potentially the biggest revenue driver for telecoms companies in the future," Deloitte notes.

Regional telecoms operators are beefing up their IoT capability, with UAE telecom firm Etisalat developing international machine-to-machine (M2M) research and development partnerships, and establishing an M2M Control Center providing IoT services such as device management since 2011.

Others sectors expected to benefit are utilities, transportation and logistics. "LTE [long term evolution] deployments in the region have progressed far faster in the Middle East than in the UK, with partnerships already forming for 5G [fifth generation mobile networks]," Deloitte said. "IoT may still seem to be a distant future, but in reality, it may revolutionize the Middle East sooner than we think."

Millennials Spending

The rise of IoT is also changing consumer behavior. The 'millennial' generation - a term used for people born after 1980 - are notoriously different from the previous generation with an aversion to print newspaper and cable TV programs, preferring to consume media content - often for free - online. There are an estimated 125 million millennials in the Middle East, and companies must find new ways to attract them as they now make up 37% of the population. "Millennials in the Middle East are willing to spend on media, an industry which has seen positive growth in recent years," Deloitte said. "It is up to the key players in the industry to differentiate themselves and respond to the evolving, tech-savvy and influential millennial consumers." These millennials spend USD 300 on average per person -- compared to USD750 in North America -- with a primary focus on pay-TV, music and computer games." By 2017, Saudi Arabia is expected to be the largest pay-TV market in the Middle East generating annual revenues of USD 466 million, compared to USD 404 million in the UAE and USD 258 million in Egypt," Deloitte estimates. However, only 11% pay for legal music downloads. The music market in the Middle East is valued at under USD 2 billion, compared to USD 15 billion in the United States alone. "The lower spending on this segment is attributed in large part to the availability of free downloads in addition to limited accessibility of live music, which is heavily concentrated in the UAE," Deloitte said. While millennials may not be keen to part with cash for music, they are willing to open their wallets for gaming. The new generation is expected to spend USD 1.7 billion on mobile gaming alone this year, making

the segment the fastest growing both regionally and globally. More than 66% of Internet users in Saudi Arabia played games online, suggesting high demand for services. Deloitte expects regional smartphone users to pay up to USD 26 on applications per month, led by gaming, especially with strong local and regional content available.

The Peninsula ictQATAR, QM sign 3D digitization MoU

The Ministry of Information and Communications Technology (ictQATAR) and Qatar Museums yesterday signed a memorandum of understanding (MoU) for digitizing 3D materials, with QM becoming the 3D Conversion Centre for Qatar. It was signed by Reem Al Mansoori, Assistant Undersecretary of Digital Society, ICT and Society, ictQATAR, and Mansoor bin Ebrahim Al Mahmoud, Acting

CEO, QM. "The ministry believes in the importance of preserving Qatar's heritage by harnessing the potential of ICTs and capitalizing on expertise and skills of parties connected to that sector. Working with all bodies in the fields of media, culture and heritage, we can develop new methods on how to preserve our heritage and how to make it available and accessible in newer digital formats in line with best international practices," Al Mansoori said. "The MoU is another step forward on implementing ictQATAR's digitization project to preserve and share Qatar's Arabic and Islamic heritage. Making our 3D heritage available online, we hope the project would be of a great benefit for our citizens, students, researchers and all those interested in studying Qatari heritage and culture," she added. "The MoU translates our vision for developing, promoting and sustaining the cultural sector at the highest standards," said Al Mahmoud. 3D materials digitization is important in making our heritage available for students and researchers here and from around the world thus enriching

the knowledge of our history by introducing it to local and international audiences," he added. ictQATAR is responsible for developing programs and taking actions required to digitize national cultural heritage and publishing it online in collaboration with authorities. QM is responsible for developing, promoting and sustaining the cultural sector. The MoU is part of the Media, Culture, and Heritage National Digitization Plan unveiled in 2014. On the sidelines, ictQATAR and Qatar National Library organized a workshop on heritage digitization.

TRA hosts workshop on safety of civil aviation

The Telecommunications Regulatory Authority (TRA) hosted a workshop on the security and safety of civil aviation in the country. It was organized by the UAE Computer Emergency Response Team (aeCERT) at the TRA, with the participation of major national airlines and airports, along with some private aviation companies, agencies and departments concerned with the topic. The workshop was intended to showcase latest technologies and certified software in the capacity of maintaining the highest levels of safety and reliability, as well as the procedures to be taken to raise safety levels, and their expected impact and effectiveness in the near future. The discussions also focused on the most important challenges and opportunities related to the aviation industry and the points that should be the focus of scientific research in this field in the future, in order to improve safety standards and promoting them on a global level. "Our business strategy is based on thought processes to find proactive and preventive solutions, and this approach is applied to all relevant sectors in the TRA's field. The aviation industry is one of the most important economic influences of the nation, where national companies assume a prominent position in the world, which requires us to improve the safety and security regulations adopted for technological standards in this sector," said Hamad Obaid Al Mansouri, TRA Director General. The UAE, represented by the TRA, has presented a work paper showcasing clear mechanisms to keep track of civil air traffic paths, through their participation at the ITU Plenipotentiary Competition (PP14), held in Korea in October 2014. Source: http://gulftoday.ae

REGULATORY NEWS

REGULATORY UPDATES

Prasad reviews spectrum sharing norms with DoT officials

Telecom Minister Ravi Shankar Prasad Monday reviewed the progress on spectrum sharing and trading guidelines with senior DoT officials. Prasad instructed officials to examine recommendations of regulator TRAI keeping in view the present and future market potential of the telecom sector, sources said. "The minister met senior officials to discuss spectrum sharing and trading guidelines. He conveyed that while framing the guidelines, the viability of the telecom sector should be kept in mind," a source said. It was, however, not confirmed if the Telecom Commission will be discussing the guidelines in its meeting scheduled to take place on April 29. The Minister had earlier announced that the guidelines would be brought out shortly. Spectrum sharing will allow telecom companies to share their unutilized airwaves with other service providers in the same telecom circle. The Telecom Regulatory Authority of India (Trai) last year had recommended sharing of all categories of telecom airwaves held by operators including spectrum allocated at old price of Rs 1,658 crore or assigned without auction. The regulator had also recommended allowing trading of spectrum. At present, only government is allowed to allocate spectrum to telecom firms through auctions. Once trading is allowed, it is will lead to efficient use of radiowaves by enabling telecom operators, who have a lower subscriber base or unutilized spectrum, to trade in it.

TRA holds workshop on "Impact of Globalization of Telecom on Regulatory Activities"

Telecommunications Regulatory Authority (TRA) Bahrain held a workshop at their headquarters on April 16, 2015 on the "Impact of Globalization of Telecom on Regulatory Activities." The Authority invited experts to speak at the workshop; Mr Sander Koch, Managing Partner and Mr. Olivier Staub, Partner of Nova Management Consultants.

The workshop agenda included discussions on the factors effecting telecoms sector around the globe such as shifting value chain, commoditization of network operators, and the topic of much global debate; Net Neutrality. The Nova experts then shared the reactions of telecommunications regulators around the world to these factors and how they are being tackled in terms of policy setting and regulatory frameworks. Members of TRA Bahrain then held a discussion with the experts what Nova's proposed available options are for the Authority.

EU telecoms reform to address competition from WhatsApp, Skype

The European Commission will take into account increased competition from cable operators and alternative services such as WhatsApp FB.O when it overhauls Europe's telecoms rules next year, a move that will be cheered by the telecoms industry. A draft seen by Reuters of the Commission's strategy for creating a digital single market says telecom operators compete with "over-the-top" services "without being subject to the same regulatory regime". "It is necessary to design a fair and future-proof regulatory environment for all services," the document says.

The bloc's telecom firms such as Orange ORAN.PA and Deutsche Telekom DTEGn.DE have long called for lighter-touch regulation, after years of declining revenues and competition from new entrants, to enable them to invest in network upgrades. Telecom companies point to increased competition from services such as Skype (owned by Microsoft MSFT.O) and online messaging as a reason for easing the regulatory burden. Considering Skype, or any other "voice-over-IP" application, as a substitute for traditional phone services could lead to those companies being subject to the same obligations as traditional operators, such as offering emergency calls.

The new European executive, who took office in November, has made investment in superfast broadband a priority. But incumbent telecom operators say the current set of rules does not provide incentives to invest in their networks. They argue they would be forced to give competitors access to those networks, an argument rejected by smaller alternative operators. Yet an evidence document backing up the strategy, also seen by Reuters, states that incumbents "appear to lack incentives to overbuild their own largely depreciated copper network assets."

TRAI Tells Telcos to Undertake Ownership From Subscribers for MNP

The Telecom Regulatory Authority of India (TRAI) has asked mobile operators to obtain undertaking of ownership from subscribers seeking to port numbers and disconnect them if the information is found to be incorrect. "...the Authority hereby directs the holders...having authorization to provide access service to incorporate in their porting request form an undertaking, to be obtained from the subscriber seeking porting of his mobile number declaring that he is the owner of the said mobile number," Trai said in its directions issued on Thursday. "In case the undertaking is found to be false, the said mobile number shall be disconnected and furnish the compliance report within twenty one days from the date of issue of this direction," Trai said.

The Authority said disputes regarding the ownership of mobile numbers, after porting from one service provider to another, have come to its notice. So, in order to strengthen the process of verification of the ownership of mobile number under porting, the Authority invited the comments of stakeholders on obtaining an undertaking of ownership of the mobile number from the subscriber at the time of porting. "The Authority examined the comments received from the stakeholders and decided to mandate obtaining of an undertaking of ownership of the mobile number from the subscriber while submitting request for porting," it said.

MNP currently allows users to retain their numbers while changing their operators within the same service area. India has 22 telecom circles, or service areas. Government has asked telecom firms to implement full MNP by May 3, a move that will enable subscribers to retain their numbers when they shift to other states or licensed service areas. It has also warned the operators of action if they miss the May 3 deadline for rolling out the full MNP.

Kenya Communication Authority opens consultations on Broadcast Services Programming Code and Complaints Procedure

The Authority has called for comments from the public and all interested parties on the draft Program Code and Complaints Handling Procedure for broadcasting services in the country. The Kenya Information and Communications Act, 1998 and the Kenya Information and Communications (Broadcasting) Regulations, 2009, mandate the Authority to prescribe a programming code for free-to-air radio and television services. The Programming Code is meant to set standards for time and manner of programs to be broadcast by the licensees. In particular the Code aims to

The Code takes cognizance of the lasting impact that media has on society. The Code has therefore been developed to reflect Kenya's national values, aspirations and dreams and at the same time ensure that the broadcasting industry displays a high sense of responsibility, morality, fairness and honesty at all times.

To protect consumers of broadcasting services, the Authority has also developed a draft Complaints Handling Procedure. The Procedure is meant to provide a fair, uniform and effective mechanism for resolving broadcast content related complaints escalated to the Authority for regulatory intervention. Comments from the public and all interested parties are invited and should be submitted through e-mail code-comp@ca.go.ke before May 8, 2015.

Pakistan blocks 26 million SIMs following re-verification drive

Pakistan's cellular operators are to block a total of 25.9 million unverified or disowned SIMs as a result of the recently concluded re-verification program, ProPakistani writes. Customers confirmed 71.1 million SIMs through the course of the 90-day project, whilst 16.7 million SIMs were rejected by customers as they were wrongfully registered to them, or were no longer in use. A further 9.2 million SIMs were not verified by the deadline and will be blocked. The re-verification drive was ordered by the government following a terrorist attack on a school in Peshawar in December 2014, during which it was revealed that the terrorists had used phones with verified SIMs. The drive required customers to confirm their identity via a biometric scanner, which checked their thumbprint against the data registered to their computerized national identity card (CNIC). Sector watchdog the Pakistan Telecommunication Authority (PTA) has called the program a success, although many remain skeptical of the impact the crackdown will have on terrorism in the region.

Norwegian-owned Telenor reportedly blocked the most SIMs, according to unofficial and unconfirmed data sent to ProPakistani by a PTA source, with 8.53 million rejected or unverified, whilst market leader Mobilink was a close second, disconnecting 7.55 million. China Mobile's Zong and Ufone, the wireless arm of fixed line incumbent Pakistan Telecommunication Company Ltd (PTCL), blocked 4.5 million and 3.86 million respectively, whilst 1.65 million Warid SIMs were blocked.

Telecom Ministry to Submit Net Neutrality Report by May 9

Amid a raging debate on providing equal Internet access to all, the government has set up an expert panel to look into the issues of net neutrality and a report on the matter is expected in a month's time. Telecom Minister Ravi Shankar Prasad said telecom sector regulator Trai is holding wide consultations on the issue and its report is also awaited."Trai is undertaking a consultation on the issue of net neutrality. Trai being an advisory body, their advice is certainly entitled to our respect, which I am awaiting," Prasad told reporters in New Delhi.Net neutrality implies equal treatment be accorded to all Internet traffic and no priority should be given to any person or entity or company based on payment, which is seen as discriminatory. Prasad further said: "Way back in January itself, I have also constituted a committee headed by senior government officials of the Telecom Ministry to give me a report on the whole gamut of net neutrality objective, its benefits, advantages and limitations including the regulatory and technical issues.""I have asked them to give me a report by the second week of May after the widest consultation possible including online to help government come to an informed decision on this issue. Since I am awaiting these reports, it will not be proper for me to make any comment."Net neutrality, a widely debated issue globally, has in the past few days caught India's attention with politicians, corporate leaders and film stars taking to social media sites such as Twitter and Facebook to debate on the issue.Net neutrality gained national attention after Internet activists and experts flagged Telecom giant Bharti Airtel 'Airtel Zero'. Airtel Zero is an open marketing platform that allows customers to access a variety of mobile applications for free,

with the data charges being paid by start-ups and large companies.

Social media saw a huge debate on Airtel Zero with experts and free Internet advocates saying that the product violates principles of net neutrality. Also over the last few months, operators like Reliance Communications and Uninor have tied up with players like Facebook, WhatsApp and Wikipedia to offer free usage to consumers. Prasad added that Internet is one of the finest creations of the human mind and it is a property of the entire human race and not of any country or society."Internet to become entirely global should have a link to local and when we talk of digital inclusion it must be available to the underprivileged and on the margins," Prasad added. In January this year, the government had set up a six-member committee headed by A K Bhargava, Member (Technology), following some operators bid to charge extra for voice call services like Skype and Viber. Countries like the US, Chile, Netherlands and Brazil have already adopted Net Neutrality. Last month, Telecom Regulatory Authority of India (Trai) also started the process to prepare regulatory framework for Internet-based calling and messaging applications like Skype, Viber, WhatsApp and Google Talk, known as over-the-top (OTT) players. The regulator has sought views of people interested in the matter by April 24 and counter comments by May 8.

Brazilian telcos pay into digital switch-off fund

Claro, Vivo, TIM, Algar will together pay €1.1 billion to help free up 700 MHz band. The winning bidders in Brazil's recent 700 MHz spectrum auction have made their first payment into a fund that will contribute to the costs of switching analogue TV signals to digital.

Claro, Vivo, TIM and Algar Telecom together paid 1.44 billion reais (€440 million) into the fund, according to an Estadao piece published by R7 on Sunday. The fund, known as EAD, was created in the last month, the report said, quoting José Alexandre Bicalho, planning and regulatory head at Anatel. That sum constitutes 40% of the total amount the telcos will pay into the EAD. The remainder will be paid in two installments in the next two years.

The telcos will together contribute BRL3.6 billion (€1.1 billion). The majority will be split between the big three – America Movil's Claro, Telefonica-owned Vivo, and Telecom Italia's local unit TIM will pay BRL1.19 billion each – while Algar Telecom is responsible for the remaining BRL18 million. The telcos have a strong interest in facilitating the transfer of television signals, since until that occurs they will be unable to use the 700 MHz spectrum they bought last year, Bicalho said.

Brazil raised BRL5.85 billion in its sale of 700 MHz spectrum in October. Claro, Vivo and TIM won nationwide 700 MHz licenses, paying between BRL1.93 billion and BRL1.95 billion each, while Algar Telecom picked up a license covering the four states in which it operates for BRL29.57 billion. Two of the six licenses on offer did not attract any bidders. Brazil's fourth largest mobile operator Oi did not take part in the contest. When it announced the results of the competition, Anatel noted that the winning bidder would be expected to bear the cost of any measures required to avoid interference with digital TV services and the cost of migrating the TV channels to their new frequencies.

NCC to hold telecom hearing

The National Communications Commission (NCC) is scheduled to hold an administrative hearing on Monday in a bid to solve the controversy over Asia-Pacific Telecom's (APT) proposed merger with Ambit Microsystems and its roaming agreement with the Taiwan Mobile.

Fourth-generation telecom service operators had filed a joint complaint questioning the legality of the APT-Taiwan Mobile roaming deal. Roaming is defined as allowing one carrier to continue servicing its customers in out-of-service areas by using the networks of other carriers. An investigation by the commission found that instead of increasing the number of its base stations in accordance with its business plan, APT had been using Taiwan Mobile's network to serve clients in its service area, which does not meet the definition for roaming.

The commission also found that although it had not yet approved the APT-Ambit merger, APT had begun using Ambit's core network.

The commission first fined APT and Taiwan Mobile NT$600,000 each for using a system not listed in their business plans and for failing to report the roaming partnership to the commission. It also fined APT and Ambit NT$300,000 each.

As these controversies affect other 4G carriers and service providers, such as WiMAX operators, the commission said it would focus on two issues at the hearing. First are the obligations required for each carrier in a merger before they can secure approval from the commission? Specifically, the commission wants to determine if carriers should offer more base stations, wider service coverage, faster transmission speeds, larger service capacity and more efficient use of the frequency than the commitments they have listed in their business plans before a merger is allowed to proceed. The other issue relates to the problems that a carrier encounters if it employs a different core network system from the one listed in its business plan after it is granted a license. As an example, the commission said it wanted to stipulate the procedures that a carrier must follow if it decides to change from voice over long-term evolution system to the circuit-switch fallback system.

The agenda set by the commission for the administrative hearing is likely to disappoint some carriers, which want it to include other issues, such as whether there should be a lockup period after a frequency auction barring the trading of frequency blocks among carriers. Some carriers also want the commission to specify requirements for carriers applying for a merger, in case some carriers obtain the spectrum first and then merge with one another to monopolize ownership of a spectrum.

European Commission probes Telenor-TeliaSonera Denmark merger

Consolidation of mobile networks could damage competition and lead to higher prices for consumers, Commission warns. The European Commission on Wednesday opened an in-depth investigation into the planned merger between Telenor and TeliaSonera in Denmark, expressing concerns that the deal could have a negative impact on competition.

TeliaSonera and Telenor agreed to merge their Danish operations late last year, a move that would leave three mobile network operators in the market. The merged entity would have a market share of around 40%. The two remaining players – incumbent TDC and the market's smallest player 3 – might struggle to compete effectively with the merged outfit, the Commission said. "This could lead to higher prices and less innovation," it warned.

The Commission also pointed out that both Telenor and TeliaSonera offer fixed broadband and TV services, as well as having mobile offers under multiple brands. On the mobile side, the telcos already have a wide-ranging network-sharing deal in place. "My aim is to make sure that the proposed transaction will not lead to higher prices to Danish consumers and businesses," said European competition commissioner Margrethe Vestager. The Commission has 90 days to carry out the probe. It is due to make a decision by August 19.

If other similar cases are anything to go by, the Commission will likely approve the merger provided the telcos agree to certain remedies designed to safeguard competition, such as the divestment of spectrum – Berenberg analysts suggest 3 could be the main beneficiary from such a requirement – or the establishment of favorable conditions to enable newcomers into the market. Indeed, the Commission noted that the consolidation of network operators also reduces the choice of host network for wholesale customers. "Finally, the merger would result in a highly concentrated market structure with two large and symmetric operators at the retail and wholesale level," it said. "The Commission has concerns that this could lead to coordination between the remaining operators."

Free meets regulatory requirement to reduce reliance on roaming

France's smallest mobile operator says network reaches 78% of population; aims for 60% 4G coverage by year-end. Free Mobile has rolled out its 3G network to reach 78% of the French population, thereby meeting the requirements of its license. In January Arcep asked Free to prove that its network met the coverage obligation imposed by its 3G license.

The regulator said it would carry out a series of tests on the network to verify the accuracy of Free's coverage map. Iliad's Free acquired its license in 2010 and launched services in January 2012, relying mainly on a roaming deal with Orange for coverage while it built out its own network. The terms of the license required Free to cover at least 75% of the population of metropolitan France with its own 3G infrastructure by 12 January this year. "Despite a difficult backdrop for mobile network rollouts, Free Mobile has managed to deploy around 5,000 sites," the telco said in a statement on Friday. Challenges included the requirement to comply with laws linked to exposure to electromagnetic waves and to co-owned properties, Free said. It also implied that it had had difficulty gaining access to sites used by other operators, even though such access is mandated by their respective licenses. The firm said it aims to reach 90% of the population by January 2018. In addition, it expects its 4G network coverage to reach 60% of the population by the end of this year. Free insists it is putting its money where its mouth is. The telco's capex-to-sales ratio stood at 23.2% last year, while its three competitors in the mobile network space recorded ratios of 14.5%-15.6%. Of course, Orange, Bouygues Telecom and Numericable-SFR have been investing in mobile infrastructure for a much longer period.

Indian Regulator to Review of Mobile Networks Accounts

India's telecoms regulator has started a review of the local mobile network operator's accounting systems. The review was prompted by apparent concerns about how they are required to book some of their products and network licenses. The concerns were raised by the industry itself.

The Accounting Separation Regulations, 2012 requires the mobile networks to provide a breakdown of their costs, and any cross subsidies and billing between subsidiaries. The regulator, the TRAI said that the mobile networks had raised concerns about how the regulations are being interpreted. The operators also expressed concerns on requirements relating to adoption of accounting separation reports by company's board and audit. A lack of clarity in the accounting, and taxation, of

telecoms operators in India has been a problem for several years, and the new investigation could be the start of a long overdue tidy up.

MIDEAST MONEY-Saudi firms tighten controls in wake of Mobily scandal

When Saudi Cable Co said last month it was delaying the release of its 2014 earnings statement, because it was still compiling information required

by an external auditor, it was a sign of growing regulatory pressure on companies in the kingdom. Regulators are signaling they want corporate managements to tighten governance and strengthen internal controls as the $500 billion Saudi stock market prepares to open up to direct foreign investment in the next few months. The process has become more urgent since an accounting scandal erupted at telecommunications firm Mobily , which in February revised its 2014 earnings to a loss of $243 million from the $58.6 million profit previously claimed. The Mobily affair, and the probe into it launched by the Capital Market Authority (CMA), have prompted many company managements, board members and even major shareholders to become more conscious of risk, executives and analysts say. "What happened has set the alarm bills ringing and pushed board members to revise their roles, made investors carefully check financial statements, and caused company managements to review their accounts carefully," said Turki Fadaak, head of research and advisory services at AlBilad Capital in Riyadh. "One sign of the new mood is that the fees charged by some auditors are rising as demand for their services grows. "The risks associated with what happened to the listed companies have caused companies to raise their fees," said a partner at a regional auditing firm, speaking on condition of anonymity because of commercial

sensitivities. He added that his own firm's business had grown substantially in the last few months as some customers began to find fees charged by the big international auditors too steep. Another sign of the regulatory pressure is a rise in fines levied by the CMA on listed companies for violations such as inadequate disclosure of information. They rose 46 percent from a year earlier to 1.83 million riyals ($488,000) in the first quarter of this year - not a huge burden for the companies involved, but a signal of the regulator's intentions. The CMA is acting to ensure a successful stock market opening, which is an important part of the government's strategy to create jobs and diversify the economy beyond oil, said a Gulf executive who does business in Saudi Arabia. "They have no choice but to step in, otherwise Saudi as a market will lose credibility and people won't invest. "Companies are preparing themselves to become more disciplined and regulated because they realize they will be questioned more. The sooner they begin this process, the less expensive it will be."

Reputation

Saudi Arabia has a relatively good reputation for corporate governance in the Arab world, and the Mobily debacle - which the firm attributed to excessive booking of revenue from wholesale broadband leases and mobile promotional campaigns - does not necessarily indicate a string of scandals waiting to explode. The CMA is viewed by fund managers as one of the strictest stock market regulators in the Middle East. But the Mobily shock came at a time when regulators were already grappling with another thorny case, that of construction firm Mohammad Al-Mojil Group (MMG). The firm ran into financial trouble several years ago and has had its shares suspended since July 2012 because of its accumulated losses. Last November, the CMA advised companies to stop engaging the local unit of international accountancy firm Deloitte & Touche for audits from June 1, 2015, according to a circular seen by Reuters. The CMA said its decision was due to a case involving a firm which it did not identify; Deloitte also declined to identify the firm, but said it believed its audit of the client met applicable standards. Industry sources said the firm was MMG. Authorities increased the pressure on both MMG and Mobily last month by raising the prospect of prosecuting individuals. The CMA said it was investigating the

possibility of insider trading of Mobily shares. Meanwhile, the Ministry of Commerce said it had referred a number of MMG board members to the Bureau of Investigation and Public Prosecution over possible violations of the companies law. It did not identify the board members. The decision "comes as part of a plan by the ministry to tighten oversight of violating companies and take necessary steps to protect shareholder capital," the ministry said. One regulatory reform that may emerge from the MMG and Mobily affairs, some analysts believe, is clarification of which part of the government is responsible for supervising auditors. At present the Ministry of Commerce supervises chartered accountants while the Saudi Organization for Certified Public Accountants, a private body, develops and reviews auditing standards. Some securities analysts believe such authority should be consolidated under the CMA to avoid any confusion. "Some entity like the PCAOP (Public Company Accounting Oversight Board) in the United States should be established in Saudi to monitor auditors, and it should be under the umbrella of the CMA," said Mazen al-Sudairi, head of research at al-Istithmar Capital in Riyadh. John Sfakianakis, Riyadh-based Middle East director of the Ashmore Group, an investment firm, said the furor over corporate irregularities at major Saudi companies would in the long term be a blessing in disguise. "Both investors and companies will now look at the things they need to avoid," he said.

EU mobile operators urged to consolidate

If Europe wants its mobile networks to be as advanced as those in the US, further mergers are necessary among wireless operators, said Ronan Dunne, the chief executive of Telefonica SA's O2 unit. European regulations need reforms to allow cross-border mergers, which will support investment in new networks and increasing wireless data use, he said. Bigger companies,

like Telefonica and its peers with operations in several countries, will then be in a position to "roll up" some of the smaller operators. "This place is just so fragmented" and that's discouraging acquirers, Dunne said. In Europe "there's a realization that you need in-country scale, but you also need some European champions".

Telefonica agreed to sell its O2 unit in the UK to Hutchison Whampoa Ltd for £10.25bn (€13.95bn) last week. The merger will combine O2 with Hutchison's Three business and take the UK mobile market from four players to three. It will also make the merged company the biggest wireless operator in the country with more than 30m subscribers.

The European Union's competition commissioner Margrethe Vestager said last month that telecom consolidation shouldn't "affect the affordable consumer prices." The commission will probably decide on whether or not to approve the tie-up between Three and O2, the companies have said. Vestager's predecessor, Joaquin Almunia, was criticised by some national regulators for approving similar deals that shrank the number of competitors in Austria and Ireland. While operators wait for new regulation to allow networks that flow across countries' borders, there are two ways to grow through acquisitions: combining with another wireless company or adding new services such as broadband and TV. "Scale is going to continue to be important and increasingly important," Dunne said. "We needed to be a buyer or a seller."

The deal with Hutchison creates one of the few remaining pure-play mobile operators in the UK. Dunne declined to comment on how a merged Three-O2 might participate in cross-border deals. BT Group Plc, the former phone monopoly and biggest broadband provider in the U.K., has agreed to buy EE Ltd, the biggest mobile operator. Sky Plc, the pay-TV operator, and TalkTalk Telecom Group Plc, a TV and broadband provider, are both paying O2 to resell its mobile service to their customers. Still, less than 2% of the market buys all four services – broadband, mobile, fixed-line and TV – from the same provider now. While that's bound to go up, O2 executives don't think it will become the primary way people buy phone and TV service, Dunne said.

TRAI facilitates easy migration between DTH service providers

The Telecom Regulatory Authority of India (TRAI) yesterday issued a tariff order (TO) prescribing a framework for Customer Premises Equipment (CPE) or set-top box offered by the Direct-to-Home (DTH) operators to their subscribers. Under the new orders, not only would the DTH operators offer a transparent price declaration of all types of Customer Premises Equipment (CPE) to enable a subscriber

to make an informed choice, but the transparent and upfront declaration of installation and activation charges by DTH operators shall not exceed Rs 450. DTH services in India have been growing at a rapid pace since they were introduced in 2003. Today, there are six private operators offering DTH services to around 73 million subscribers.

As these operators have launched the services at different point of time, deploying different transmission and compression standards and encryption solutions, CPE deployed by one operator may not be compatible with the network of another operator. TRAI pointed out that if a subscriber wishes to migrate to another DTH operator or cable TV platform, he is required to invest in the CPE/STB of the other operator. It has also been observed that there is a lack of transparency in various schemes offered by the DTH operators in the market, TRAI said while issuing orders. The Authority is of the view that interests of consumers in this regard can largely

be protected through the provision of commercial interoperability of CPEs and mandating transparent and upfront declaration of all charges and conditions by the DTH operators at the time of providing service. Commercial interoperability provides for an exit option to a subscriber in case he wishes to change the operator and avail the services from another DTH operator for any reason. Besides, the transparent pricing and cap on pricing the new orders also say that DTH operators have to mandatorily offer an outright purchase scheme

called Standard Scheme for all types of CPEs on standalone basis and they may offer additional schemes, including bundled schemes and rental schemes. In the rental schemes, DTH operators can charge a specified one-time interest-free refundable security deposit, installation and activation charges from the subscriber during enrolment followed by specified monthly rental charges. No repair/maintenance charges are permissible from such subscribers. In case of outright purchase and hire purchase schemes, DTH operators may levy visiting charges not exceeding Rs 250 per visit after the warranty period. Subscribers shall have an option of buy-back/refund for CPEs in all the offered schemes including bundled schemes with an exception of rental schemes. DTH operators may prescribe a lock-in period not exceeding six months for a subscriber to remain committed. Subscribers can surrender the CPE any time subject to levy of certain charges that have been prescribed. www.tribuneindia.com

Ghana: spectrum auction and new license framework will drive competition and innovation shared in new research report

In 2014, Ghana was the 22nd largest telecom services market in the Africa and Middle East (AME) region, with estimated revenue of $1.2bn, a 24.5% decrease compared with the previous year in US dollar terms. In local currency however, the sector expanded by 10.4%. Spectrum Auction and New License Framework Will Drive Competition and Innovation is a new market research publication announced by Reportstack. This report offers a precise, incisive profile of Ghana's mobile and fixed telecommunications markets based on comprehensive proprietary data and insights from our research in the Ghanaian market.

Published annually, this presentation-quality, executive-level report provides detailed analysis of the near-term opportunities, competitive dynamics and evolution of demand by service type and technology/platform across the fixed telephony, broadband and mobile sectors, as well as a review of key regulatory trends.

Type approval of terminal equipment a requirement under PTA Act

Pakistan Telecommunication Authority has clarified a news story headlined "Computer equipment imported by small vendors stuck up at ports" which was published in The Nation on March 12, 2015.

PTA clarified that, Section 29 of the Pakistan Telecommunication (Re-Organization) Act, 1996 (the "Act") provides that "no terminal equipment shall directly or indirectly be connected to a public switched network unless it has been approved by the Authority". Hence, type approval of terminal equipment is a statutory requirement under provisions of the Act and the regulations are issued there under in this regard from time to time. It was noticed that terminal equipment were being imported without obtaining type approval not only degraded telecom services to end users but also hazards to health and loss to national exchequer. This is clear violation of Pakistan Telecom Act 1996 requiring initiation of legal action against the violators. PTA further clarified that PTA has also taken up the matter with custom authorities and has provided a list of terminal equipment to them so that importers are facilitated and import of terminal equipment without type approval by PTA may not be allowed. It is pertinent to mention here that the said list does not include networking equipment such as computer networking equipment i.e. networking switches, networking routers, networking gateways, LAN cable etc used for computer networking only. It is clarified that custom authorities may release IT equipment without NOC from PTA. Therefore computer association claim that PTA is imposing type approval on IT equipment is unfounded.

The TRA's UAE Computer Emergency Response Team (aeCERT) organizes an aviation security workshop

The General Authority for Regulating the Telecommunications Sector (TRA) hosts a workshop on the security and safety of civil aviation in the country, organized by the UAE Computer Emergency Response Team (aeCERT) at the TRA, with the participation of major national airlines and airports, along with some private aviation companies, agencies and departments concerned with the topic. The workshop was intended to showcase latest technologies and certified software in the capacity of maintaining the highest levels of safety and reliability, as well as the procedures to be taken to raise safety levels, and their expected impact and effectiveness

in the near future. The discussions also focused on the most important challenges and opportunities related to the aviation industry and the points that should be the focus of scientific research in this field in the future, in order to improve safety standards and promoting them on a global level. "Our business strategy is based on thought processes to find proactive and preventive solutions, and this approach is applied to all relevant sectors in the TRA's field. The aviation industry is one of the most important economic influences of the nation, where national companies assume a prominent position in the world, which requires us to improve the safety and security regulations adopted for technological standards in this sector," said His Excellency Hamad Obaid Al Mansouri, TRA Director General. "We believe in the need to coordinate efforts with all entities operating within the aviation sector in the country in order to establish clear mechanisms to maintain the highest levels of security and safety and deal with emergency situations. The presence of representatives from all the companies involved in this topic is proof of the seriousness and correctness of direction that we are achieving at this stage," said Adel Al Muhairi, aeCERT Director. The United Arab Emirates, represented by the TRA, has presented a work paper showcasing clear mechanisms to keep track of civil air traffic paths, through their participation at the ITU Plenipotentiary Competition (PP14), held in Korea in October 2014. This was adopted by the conference participants, which was comprised of the world's largest gathering of member countries in the International Telecommunication Union. The workshop witnessed the provision of many ideas and unique solutions, while debates characterized a large degree of seriousness and the interaction between the audience, which included representatives from Emirates Airlines, Fly Dubai, Abu Dhabi Aviation as well as Abu Dhabi, Dubai and Sharjah airports and representatives from private aviation companies in the country and experts in the field of aviation safety and security.

To cooperate, or to coordinate: alternative operators' FTTx dilemma

Federico Torri
Manager
Analysys Mason

Operators' commercial propositions come to terms with high speed/low latency broadband access adoption largely driven by mainstream 'data hungry' behaviours (video/TV, OTT, online gaming, simultaneous multi-user/ multi-device usage, etc.), which require significant irreversible investments in next generation access (NGA) infrastructures.

In the 90s, cable operators invested significantly in developing proprietary HFC* (Hybrid Fibre Coaxial) access infrastructures with a business model built around pay-TV as anchor service which has driven multi-play adoption (DOCSIS high speed broadband). However the lack of diverse ecosystem (OTT in particular), and prematurity of demand have attempted the sustainability of such models and related investors' returns; many players suffered significant losses and even faced bankruptcy.

New entrants and alternative operators seem to have learnt the lesson now. Today investments are transforming traditional telecoms infrastructures into scalable and integrated / hybrid (fixed and mobile) networks, with fibre (FTTx) and 4G technologies being used in synergy in the context of operators' ultra-broadband strategies. Operators are carefully offering tailored 'consumable' (e.g. family centric) and convergent 'data-centric' offers (in mobility and at home) in order to exploit fixed-mobile synergies and to address diversified (ultra-)broadband needs, avoiding the risk of cannibalisation/substitution and maximising the monetisation of selected/ gradual network investments.

In order to lower risks associated with infrastructures, alternative operators are increasingly seeking ways to reduce the size of such investments. In fact, investments – especially in fixed access infrastructures – can be sustained only by a very small number of operators: investments are sought mainly to sustain the business within a medium-long time horizon in the context of 'wearing thin' traditional business models. The advantages of rolling out proprietary infrastructure – vs. procuring 'per user' wholesale products – will allow operators to tailor flexible and competitive retail

offers, ultimately leading to important competitive advantage.

FTTx coverage today is still limited largely due related high deployment costs and a demand not fully materialised yet; public policy and/ or regulatory bodies aim to promote FTTx infrastructure based competition by alleviating barriers to roll-out and providing appropriate wholesale tools. Nonetheless standalone viability of FTTx roll-out is largely contingent upon scale of the operator in a certain area, with roll-out taking place initially in economically viable areas only: affluent / high dense areas where unit cost of deployment are lower and take-up / market share expectations are favourable.

Alternative players with lower 'scale' are typically interested in targeting the same areas. Co-operative deployment ('co-deployment') in order to 'share' roll-out costs and to mitigate demand related risks is certainly suitable in areas where each operator has an

interest, however areas where such interest is not uniform might be excluded, being subject to outside-in (independent and external) decision mechanisms.

Traditional co-deployment initiatives are typically complex to manage (especially if asymmetric), and fragile/ subject to unexpected future changes which significantly limit medium/ long-term visibility (especially vis-à-vis irreversible nature of network investment).

More realistically operators aim to ultimately reach sufficient 'scale' to enable co-ordination between
• roll-out plans (maximise viable coverage/footprint) and
• commercial strategy (exploit national level marketing / branding).
• A co-ordinated roll-out strategy established, for instance, around an independent/separate wholesale only operator which

rolls-out a fibre infrastructure and sells wholesale services to operators' retail division depending on their actual needs, should be able to reach a relevant 'scale' condition and to align different parties' objectives by
• turning viable investment in areas where operators would not have considered to roll-out standalone (see Figure 1),
• facilitating independent evaluation on users' migration strategy by each operator participating, eventually making the compensation based on actual consumption of relevant fibre services by the parties

Figure 1: Possible decisions' outcomes [Source: Analysys Mason, 2015]

In this context, operators should seek appropriate models enabling demand aggregation (at 'wholesale' level) as well as customer base migration (at 'retail' level) from legacy to NGA networks, which represent necessary 'variables' in the equation for a successful FTTx roll-out.

A SNAPSHOT OF REGULATORY ACTIVITIES IN SAMENA REGION

REGULATORY UPDATES

Algeria

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

Minister of Post and Information and Communication Technologies Zohra Derdouri said that Algeria is interested in the South African experience in the field of information and communications technologies, said the ministry in a communiqué. Derdouri hailed, at the end of an audience granted to South African minister of Telecommunications and Postal Services Siyabonga Cwele, "South Africa's pioneering experience in the field of information and communication technologies." This meeting is part of the 6th Algerian-South-African High Binational Cooperation Commission. The two sides broached the nature of the Algerian-South-African relations in this field and the ways to create new dynamics of cooperation to this vital and important sector. Derdouri underlined the necessity to reinforce cooperation between the two countries in this field and benefit from South Africa's experience, especially as the two counties have common goals and ambitious programs in the prospects of creating major centers in the continent in the area of new technologies.

(April 1, 2015) allafrica.com

Bahrain

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

Bahrain's telecoms regulator, the Telecommunications Regulatory Authority (TRA) has started an investigation into complaints about mobile international roaming bills and so called, bill shock issues. TRA's Director of Consumer Affairs Sh. Abdulla bin Humood Al Khalifa said "During the first quarter of this year , not only did we notice an increase in the number of consumer complaints related to roaming cases, but also an increase in the amounts being billed to consumers as a result of using mobile roaming. He noted that one of the cases that is being currently investigated has a value of BD 12,800 (US$33,760). Sh. Abdulla continued in stating that "During separate meetings late last year, TRA urged the three mobile telecommunications service providers to take voluntary actions regarding the roaming bill shocks such as establishing a maximum threshold to trigger warnings, and to adopt risk management measures such as suspending the mobile services when an agreed limit is reached." He further adds, "We are putting all of our efforts to resolve those cases in hand and studying the implementation of additional

regulatory measures to ensure that consumers are notified when they're about to reach their limits to prevent them from incurring additional charges."
(April 20, 2015) cellular-news.com

The Telecommunications Regulatory Authority (TRA) issued a public consultation document on the draft regulation for a new approval regime for the importation and use of Telecommunications Equipment connected to public Telecommunication networks. The proposed draft regulation defines the roles and responsibilities of TRA and any person or entity wishing to import telecommunications equipment (connected to Public telecommunications networks) into Bahrain. The draft regulation proposes the adaptation of international standards as basis for TRA technical specifications, requirements and approval process, which would in turn make the process slicker for the benefit of consumers and licensed operators. Engineer Mohammed Bin Abdulla Al Noiami, Technical & Operation – Director Said: The draft regulation also proposes a system which aims to ensure that imported telecommunications equipment (connected to Public telecommunications networks) meets certain pre-requisite standards to ensure the safety of users and that such equipment does not harm public telecommunications networks or cause harmful radio interference. He added: The new proposed approval regime process is transparent, non-discriminatory and is based on international best practices. It will contribute to facilitate competition in the supply of a wide range of telecommunications equipment (connected to Public telecommunications networks), which should benefit consumers by increasing choices of new and modern technical equipment.
(April 8, 2015) tra.org.bh

Bangladesh

Chairman: Sunil Kanti Bose
[Bangladesh Telecommunication Regulatory Commission (BTRC)]

Bangladesh's 1800MHz/2100MHz mobile spectrum auction, which has already been pushed back to May 20, 2015, looks likely to be delayed again due to the failure to settle a regulatory dispute over tax on replacement SIM cards. Further postponement is now likely after a meeting between the country's major cellcos and various government figures failed to reach a positive outcome on the issue of disputed replacement SIM tax back payments. The current auction schedule would require operators to submit bid applications by 16 April. The recent meeting was attended by representatives of Airtel, Banglalink, GrameenPhone, Robi Axiata, the heads of the National Board of Revenue (NBR) and the Bangladesh Telecommunication Regulatory Commission (BTRC), and the Telecommunications division secretary.
(April 15, 2015) Developingtelecoms.com

The Bangladesh Telecommunication Regulatory Commission (BTRC) has pushed back the date for auctioning unused 1800MHz and 2100MHz band spectrum to May 20, 2015 from its previous schedule of April 30, after cellcos GrameenPhone, Robi Axiata, Banglalink and Airtel Bangladesh requested the deferment. According to a letter from the regulator, the deadline for submitting applications is April 16, and a list of eligible bidders will be published on April 21 ahead of

a consultation on the auction process to be held on April 26. May 12 is the deadline for submitting bid deposits, and the final auction will be held on May 20 following a mock auction the day before. The winners will be announced on the same day as the auction, according to the BTRC's letter. However, there remains potential for further disruption, as the mobile operators on March 1 sent a letter to the finance ministry stating that they would not take part in the auction since their various demands remained unmet, including: withdrawal of VAT on sold spectrum; settlement of the case over tax on replacement SIM cards; revision of the telecoms law; freedom to use spectrum for multiple purposes; and revision of tariff structures. In other Bangladesh news, the government approved a draft law on March 30 imposing an additional 1% surcharge on all mobile phone-based service usage; if the law is passed by parliament, BDT1 (US$0.0126) will be deducted from every BDT100 usage of any voice, data or value added service, according to local newspaper the Daily Star. The latest surcharge is additional to the existing 15% VAT levied on mobile service bills/credit top-ups.
(April 1, 2015) BDNews24

Egypt

Executive President: Eng. Hesham El Alaily
[National Telecommunication Regulatory Authority (NTRA)]

The National Telecommunication Regulatory Authority Board of Directors (BoD) held a meeting yesterday, chaired by the Minister of Communications and Information Technology Khaled Negm, through which new sanctions to deal with breaches of Telecommunications companies in the Egyptian market were approved. Given its significance to Egypt's national security, Negm has highlighted the importance of checking customer databases of mobile operators. He has also pointed out to the importance of improving the quality of mobile services. During the meeting, Negm discussed internet services prices and said that MCIT will address mobile service providers to present their proposals on reducing service costs in the coming two weeks, to be reviewed by NTRA. Moreover, the ICT minister spoke of monopolistic practices and means to prevent them from prevailing to protect customers' rights, in line with the rules of free competition. NTRA Chairman Hesham El-Alayly has announced the new sanctions, approved by BoD, are a strong tool to penalize violators. Such an essential step will activate NTRA role as the sector's efficient regulator. Yesterday's meeting is the last for current members; the new BoD will be announced later this month.
(April 8, 2015) mcit.gov.eg

Where should the global community focus its attention over the next fifteen years? Health, nutrition and education may seem like obvious top priorities but, more surprisingly, there is also a strong case for broadband access to be considered. Tripling mobile internet access from 21% to 60% in developing countries over the next 15 years could make this part of the world $22tr richer. Achieving the 60% target for Egypt, where about 31% of the population are hooked up to mobile broadband today, could mean an extra benefit of $257bn for the country. This means that every Egyptian could be about $3,140 richer within 15 years. And such improvement in the lives and earning potential of poor people could

indirectly help with other challenges; more prosperous people tend to be healthier, better fed and better educated. This discussion matters, because the world's 193 national governments will meet at the UN in September next year to finalize a list of targets for the world to meet by 2030. My think tank, the Copenhagen Consensus, has asked 60 teams of economists, including several Nobel laureates, to investigate which targets would do the most good for every dollar spent, to help this meeting make the best choices. A World Bank study showed that a 10% increase in broadband penetration increased GDP growth by 1.4% in low to medium income countries. This is important, because the digital divide among developed and developing regions of the world still persists and closing it could give a big boost to development. For example, while mobile broadband is used by over 83% of people in the industrialized world, penetration is only 21% in developing countries. While governments in Europe and elsewhere continue to invest in faster and better broadband, the biggest benefits will always come from providing Internet connection to people who don't already have it, most of whom live in developing and emerging countries. Here, the developing world can leap-frog industrialized countries, eschew expensive fiber-optic cables in what is called the "last mile" or access part of the network, and go straight to mobile broadband. Mobile phone use is already spreading rapidly in developing countries, avoiding the need for old-style fixed infrastructure, and data services can use the same system. In China, three quarters of Internet users access it via mobile phones already, and in Ethiopia and Uganda, four out of five use the mobile internet. Thus rolling out mobile broadband seems a cost effective solution given its pervasiveness and recent technological advances in mobile networks. The study shows that increasing mobile broadband about three-fold in developing regions – from 21% to 60% – will have a significant cost (about $1.3tr). This is simply the cost of the extra infrastructure needed to hook up about three billion more connections to the Internet. However, it will also increase GDP growth. By 2020, the benefits would be almost half a trillion annually, and these would increase further towards 2030. Over the coming decades the total benefit would reach about $22tr. For every dollar spent on mobile broadband, the academics estimate a benefit of $17. Investing in mobile broadband for the developing world looks like a really smart move. If the goal of 60% broadband by 2030 was achieved, it would make each person in the developing world who was previously not connected almost $11,000 richer on average. Broadband is such an important enabling technology that it is difficult to estimate the complete impact on the economy, which will vary with local circumstances. What the study does show, though, is that rolling out Internet access is money very well spent. Jobs are created directly in the organization providing the network and indirectly in the supply chain. (April 8, 2015) dailynewsegypt.com

Iran

Minister of Communication & Information Technology: Mr. Mahmoud Vaezi
[Communication regulatory Commission (CRC)]

MTN Irancell, the Iranian mobile operator 49% owned by MTN Group of South Africa, has reported that it now has 21 million 2G, 3G and 4G mobile data users on its networks, with newly-launched 3G and 4G technologies accounting for more than seven million subscribers. The company says it is providing 3G services in over 200 cities, with 4G networks available in more than 50 cities. Irancell launched 3G services in September last year, followed by 4G Long Term Evolution (LTE) technology two months later. (April 21, 2015) telegeography.com

South Africa based MTN expects to be able to transfer around USD1 billion in profits from its Iranian subsidiary if and when sanctions against Iran are relaxed. International sanctions are expected to be relaxed over the next few months following a deal over the country's nuclear program. If confirmed, then MTN's 49% stake in Irancell could see a sizeable windfall for the company. "We have in total an equivalent of about $1bn, which is both a loan repayment from Irancell due back to MTN, as well as accumulated dividends," Nik Kershaw, head of investor relations at MTN told the Reuters news agency. "The lifting of the sanctions would then allow us to start to repatriate some of the money." Sanctions were imposed in 2006, which blocked MTN from repatriating any funds from the Iranian subsidiary. The move came just after MTN was granted the license in the country following the cancellation of a license awarded to Turkcell. The remaining 51% of Irancell is owned and controlled by Iran Electronic Development Company (IEDC). (April 9, 2015) cellular-news.com

Iraq

CEO: Dr. Buhan Shawi
[Communication & Media Commission (CMC)]

Zain Iraq has filed an application with the Iraqi Securities Commission (ISC) to launch an initial public offering (IPO), Reuters writes, citing parent company Zain Group. In an emailed statement, a spokesperson from Zain told the news outlet that it had filed the first set of application documents for a listing on the Iraq Stock Exchange (ISX) and that its application was not subject to approval from the bourse and telecoms regulators. Under the terms of their licenses, Iraq's mobile providers were obliged to list 25% of their shares on the ISX by August 2011. To date, only Asiacell, a subsidiary of Qatar's Ooredoo, has fulfilled this obligation, having listed 25% of its shares on the ISX from February 2013. Commenting on Zain's application, ISC chairman Abdul Razzaq Al-Saadi noted that: 'They have preliminary approval. There are some technicalities that need to be ironed out, such as the mechanism of listing and subsequent trading and some further requirements from Zain that they have pledged to sort out.' (April 23, 2015) Reuters

Jordan

Chairman of the Board of Commissioners/ CEO: Mr. Mohammad Al Taani
[Telecommunication Regulatory Commission (TRC)]

The International Telecommunication Union recently organized its Arab Regional Development Forum in Amman, Jordan which discussed the role of broadband in spurring sustainable development. Organized by the ITU Arab Regional Office, the forum discussed the five Arab Regional Initiatives approved by the World Telecommunication Development Conference held in Dubai, UAE in April 2014. The five Initiatives focus on

the areas of broadband, cyber security, ICTs (Information and Communication Technologies) for the environment, smart learning, and ICTs for persons with disabilities. The high-level Forum provided participants – comprised of ITU member states from the Arab region – with an opportunity to exchange experiences and best practices in the implementation of these initiatives. It also discussed the activities of the ITU-D Study Groups and of the ITU Centers of Excellence. In his speech, Brahima Sanou, Director, ITU Telecommunication Development Bureau said: "The Dubai Action Plan sets out a road map for ITU-D's work and a shared vision to make a tangible difference to people's lives. Regional Initiatives guide BDT, Member States and Sector Members in implementing specific projects that focus on the priority needs of each region. I call upon all our members and partners to join forces with BDT to implement the Regional Initiatives." Dr Ibrahim Nasser Harb, Chairman of Samena Council's Regulatory Working Group and chief legal and regulatory officer at Orange Jordan, said: "In providing an interactive framework for regional stakeholders to outline a set of shared goals and work collectively towards their achievement, the Arab Regional Development Forum serves as a catalyst for not only the development of the Middle East's telecommunications sector but in bridging the digital divide existing in our societies." "Broadband communications have a key role to play in building a safer and more connected world, and interactive forums such as these help set forth credible implementation plans that can allow countries in the Arab world to more fully realize the potential of ICT as an enabler of socio-economic growth and stability," he added. ITU's Regional Development Forums provide an opportunity for high-level dialogue between the Telecommunication Development Bureau (BDT) and decision-makers of ITU member states and sector members. They serve as a platform for assessing strategic orientations that may have an impact on BDT's regional work plan in between world telecommunication development conferences. (April 20, 2015) tradearabia .com

Lebanon

Chairman & CEO: Dr. Imad Hoballah
[Telecommunication Regulatory Authority (TRA)]

Telecommunications Minister Boutros Harb is seeking to speed up the creation of Liban Telecom in a bid to liberalize the sector, insiders said Tuesday. Harb held a meeting at the ministry Tuesday with advisers and officials to review the best ways to create Liban Telecom and appoint the board of directors. Harb has called for another meeting soon and said he would seek with professional consultants to upgrade the existing Law 431. Law 431 calls for the establishment of a state-owned operator, LibanTelecom, through the merger of the operations of Ogero (a government-owned contractor) and two directorates of the Telecommunications Ministry. According to the law, the new company would be an integrated telecom operator providing fixed and mobile telephone services, local and international communications, voice and data access, pay phones, emergency call services, dial-up and printed directory information services. Although Law 431 was passed by the Parliament in 2002, none of the telecoms ministers took a serious imitative to create Liban Telecom or to appoint the board members. Some past telecoms

ministers even tried to block the implementation of Liban Telecom under the pretext that this firm would reduce their powers. A senior official who took part in the meeting told The Daily Star that the privatization of telecommunications is the one of the primary goals of Liban Telecom. "Of course the Cabinet needs to appoint the members of the boards as a first step. Let's hope that ministers will not quarrel over the names of candidates," the official said. He added that, contrary to the views of some political quarters, the privatization of the cellular networks will revitalize this sector and create growth in the economy. The state owns all cellular networks, operated by two private firms whose profits go to the Treasury. (April 8, 2015) zawya.com

Morocco

Director General: M. Azdine El Mountassir Billah
[Agence Nationale de Reglementation des Telecommunications (ANRT)]

The three main mobile operators in Morocco have won licenses enabling them to operate 4G services, opening the door to critical new revenue streams for a sector that is nearing subscriber saturation. According to a statement from the National Agency for Telecommunications Regulation (ANRT) on March 18, Maroc Telecom, Méditel and Inwi were issued the radio spectrum licenses after submitting tenders for the first 4G licenses a week earlier. The auction raised Dh2bn (€187m), the ANRT said in a statement. National authorities expect operators' turnover to climb quickly once 4G services are launched, although the 4G rollout will necessitate heavy capital spending on network upgrades by operators. The telecoms market has steadily increased subscriber numbers as well as usage in the last decade; however, average revenue per minute (ARPM) has declined in recent years as the market nears saturation. The former state-owned monopoly, Maroc Telecom, won the most sought-after radio frequencies, paying Dh1bn (€93m) for the spectrum license. Méditel, the country's second operator, and Inwi – the last operator to enter the sector in 2010 – paid Dh500m (€46.6m) each, the regulator said. The license tender has been pushed back several times; the ANRT initially planned to award 4G licenses in early 2013, with a view to launching commercial services by the end of that year. After further delays, the new cut-off date for submissions of bids was set for March 12, 2015. The country's three main operators were the only applicants. The ANRT said it would evaluate the bids on the basis of each operator's expected investment in new infrastructure, coverage area, service quality, competitiveness and the long-term business plan, along with the accompanying financial offer. In its most recent statement, the ANRT said that the operators offered investment commitments to contribute to the development of national telecommunications infrastructure. (April 3, 2015) english.globalarabnetwork.com

Nepal

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

The Nepal Telecommunications Authority (NTA) is all set to manage the balance that remains unused in cell phone accounts. Whenever a customer leaves a SIM card idle,

the telecom service provider scraps its registration after a certain length of time. Any unused balance in such expired SIM cards goes into the account of the telecom service provider. SIM cards having a balance are mostly left behind by tourists and workers who leave for foreign employment. The balance remaining in the SIM cards of subscribers who keep their phones idle for a certain period also goes into the account of telecom service providers. Such balances which go into the account of service providers increase their profits significantly. Since the amount is already earned by the operator while selling recharge cards, the accumulation of such unused balances makes the profitability significantly high. Issuing a directive to scrap the registration of SIM cards that have remained unused for more than six months, the NTA has also directed operators to manage such funds. "We have asked the regulators either to give back the amount to the concerned users or keep it separately," said NTA Chairman Digambar Jha. The regulatory body, however, is unsure about the amount companies have accumulated in such a manner. The NTA is also unsure about how the money is being utilized by them. "When we asked an operator having limited customers about the issue, it said that it had accumulated Rs800,000 in unused balances," an NTA source said. "This shows that big operators have a huge amount of such money in their accounts." According to the NTA, more than 25.2 million SIM cards have been sold in the country. The data comprise GSM as well as CDMA SIM cards. GSM SIM cards are sold by Nepal Telecom and Ncell, the two big telecom service providers in the country. According to NTA data, Ncell has the largest customer base in the GSM segment with 12.1 million users. Nepal Telecom has 9.9 million GSM SIM card users. The prepaid recharge cards of Nepal Telecom come with a specific validity period. If consumers fail to utilize the balance within the designated time, the amount becomes unusable for them. Ncell, however, does not have a validity period and the balance remains usable for around one and a half years. If the balance is unused for more than that time, it goes to the operator's account. "Most companies have a validity period of one and a half years," a source at a private telecom service provider said. "After that, the balance is shifted to a separate account." Different companies make use of such funds in different manners. "Once the SIM registration is scrapped, the customers do not ask for the balance back from the telecom operators," the official said. Since there is no specific provision regarding the issue and the NTA too has not issued any directive, telecom service providers having making use of the money as per their convenience. "We are not sure what has happened to such unclaimed amounts so far," Jha said. "However, we have directed the operators either to return the amount or keep it separately." The NTA board of directors has made such adjustments by preparing a new policy. The NTA is yet to make plans regarding the utilization of such funds, though it has already directed the companies to keep them separately. "We will make a concrete decision soon," Jha said. (April 8, 2015) ekantipur.com

The Nepal Telecommunications Authority (NTA) is to direct fixed-wireless and limited mobility service provider United Telecom Limited (UTL) to compensate its customers for a series of network outages which occurred during an industrial dispute in January-March this year. A report says this is the first time the regulator will issue one of the country's telcos with an order to provide such compensation. The official order from the NTA is expected in the next few days, the report suggests. The watchdog wants UTL to extend the validity of pre-paid vouchers, while giving post-paid users a free month line rental. For its part, UTL has already said that it is planning some form of compensation for its subscribers. Earlier this year UTL employees blamed management for network outages which hit customers in eastern and western regions of the country. Workers accused management of 'tampering' with equipment on purpose in an attempt to make employees look inefficient as they seek push through job cuts which would slash up to 60% of UTL's workforce. Meanwhile, management responded by claiming that disgruntled employees were refusing to repair the damaged infrastructure. UTL is 80%-owned by three Indian firms – Mahanagar Telephone Nigam Limited (MTNL), Telecom Consultants India and Tata Communications – with the remaining 20% held by Nepal Ventures Ltd (NVL). (April 8, 2015) eKantipur

Oman

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

To address competition issues and aid consumer welfare over rates, the Telecom Regulatory Authority (TRA) plans to introduce rigorous assessment and approval of all tariffs. Under the proposed Retail Tariff Regulation, the authority will require all tariffs to be registered or filed with it before they are marketed by telecom companies. TRA feels that this is a way to address issues arising out of market dominance. "This regulation is aimed to be a single reference for all matters relating to filing and approval of retail tariffs. It sets out in detail the processes that the authority intends to adopt in future for the registration and filing of retail tariffs from dominant and non-dominant licensees," said the authority in its public consultation document on Retail Tariff Regulation. Comments to the consultation, which is open to all, should be sent by May 7. The proposed regulation will enable customers to understand prices in a better way that they will have to pay for services and any terms and conditions which will apply to the application of tariffs, including discounts, which are available to them. It will also facilitate the comparison of tariffs and related services and will also help customers to understand and reconcile billing for services with published tariffs. The proposed regulation also intends to allow licensees sufficient flexibility to set tariffs that are effectively competitive, and where services are not effectively competitive, and where the authority has formally determined that the nominated licensees are dominant in those markets, to subject their proposed tariffs to a more rigorous assessment and approval process to determine, before acceptance and registration, whether any aspect of the tariffs might entail material risks for competition or consumer welfare. Provisions associated with advertising of tariff and related services, promotional issues associated with prizes, competitions and quizzes will also be covered by the new regulation. The other key policy setting that is expressed in the draft Retail Tariff Regulation is on providing a procedure for the filing of tariff from non-dominant licensees and to add greater certainty to the processes for approval of tariffs from dominant licensees. Under the new rule,

all tariffs from whatever source should be submitted to the authority and registered or filed before being implemented by the relevant licensee. In the case of tariffs from dominant licensees, the process involves an application for an approval and subsequent registration of the tariff if approval is granted. Unless an approval is given by the authority there will be no registration and the proposed tariff will not proceed. In the case of tariffs from non-dominant licensees the process involves a filing. After 15 working days from the filing, if the licensee has not heard anything from the authority the licensee may assume no objection and proceed to implement the proposed tariff according to its terms. The process of examining applications for approval from dominant licensees will be more resource-intensive than the processes associated with filings from non-dominant licensees. "Therefore applications for approval from dominant licensees will require at least 30 working days before the proposed date of implementation, compared to 15 working days for filings," stated the telecom authority. (April 27, 2015) muscatdaily.com

The Telecommunications Regulatory Authority (TRA) Oman carried out a Price Benchmarking study of retail telecom services with the participation of the Sultan Qaboos University. Strategy Analytics Ltd, an independent consulting firm in the United Kingdom provided the expert inputs to the study. The latest study compared the prices of telecom services in the Sultanate of Oman with those of GCC countries and some selected countries comparable to Oman - Jordan, Tunisia, Malaysia and the UK. The study was designed to benchmark the prices of retail telecommunication services for Fixed Voice, Fixed Broadband, Mobile Voice and Data, Mobile Broadband and International calls with the selected countries and compared the prices for all available offers showing the lowest end-user charges for a basket of services. Prices are a function of many variables including mainly competition level, population density, operational and capital expenditure, service quality requirements, government taxes and fees etc. In order to make the comparison logical, a standard usage profile was created with the help of actual data for each of these services in Oman and prices of different services were collected on the same data from the selected countries. The prices were then calculated for the same usage profile in different countries based on purchasing power parity (PPP). With services converging, the service providers offer different service-packages and price-plans to meet the diverse needs of different users. The study provides only an overall general assessment of price level and while comparing the prices of selected retail services with those of benchmark countries, the report highlights Oman's ranking as compared to the selected countries. This study also examines the Oman position in comparison to a previous study carried out in 2012. The Omani Service providers do not rank well in most of the services as compared to their peers in the selected other countries.

More specifically, for Oman, the main insights of the study are:
•   Fixed Voice: The prices for fixed voice services in Oman are comparable to the prices in other GCC countries, and also the other selected countries.
•   Fixed Broadband: The prices of fixed broadband services in Oman are among the highest in the countries covered by the study across all usage baskets except for medium speed.
•   For mobile voice services: The pre-paid prices from network operators in Oman are well above the GCC price average. For post-paid and business services the prices in Oman are at the higher end of the scale among the countries covered.
•   Mobile Broadband: Prices for mobile broadband services in Oman are either below or comparable with other GCC countries for pre-paid services at low usage levels, but among the highest for post-paid and higher usage levels.
•   For International calls: Oman's position is good in comparison to other studied countries for international calls from fixed line as well as from mobile. International calls from fixed line are even cheaper than calling from a mobile number to most of the countries.

Due to their limited market share the Omani resellers are excluded from the results shown here. However, the full report published on the TRA web site www.tra.gov.om shows the comparison with and without the mobile resellers. Despite the marginal decline in prices of some telecommunications services, the study finds that Oman's position compared to other countries did not improve in 2014 as compared to the results of 2012 study for most of the services. The TRA acknowledge the contribution of Service Providers for providing data for this study and the active role played by the Sultan Qaboos University. (April 20, 2015) tra.gov.om

Pakistan

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

3G subscriptions in Pakistan have shown a staggering over 550 per cent growth during last nine months with total count of mobile broadband (3G) subscribers crossing the 11 million mark. In July 2014 the number of 3G/4G subscribers was only 1.9 million and it jumped to 10.34 million by February 15, 2015 with addition of an average one million per month. A senior official of telecom sector regulator shared the figures at a road show organized here by Nokia Networks to demonstrate its 5G LTE and other network solutions. With regard to 4G Long Term Evolution (LTE) deployment and growth the official said the number of LTE connections worldwide more than doubled between 2013 and 2014 from 200 million to around half a billion (490 million). The developing world makes up a quarter of global LTE connections by end of 2014 and by 2016 the developing world is expected to overtake developed world in terms of LTE connections. The official said the potential of data services for telecom operators has highlighted that data revenues are now 25 percent of total telecom revenues up from 16 % before the auction of 3G/4G spectrum in April last year. Pakistani subscribers clear hunger for more data means immense potential for telecom operators and a way for them to reap better Return of Investments (ROIs) in a market which was previously perceived by investors as saturated. With regard to broadband subscriptions in the country the official said it has also reached a remarkable point up from mere 3.8 million just an year ago. Head of Customer Marketing for Nokia Networks explained that LTE networks are considered to be as smooth as fixed

(fiber) broadband even in the developed markets hinting that Pakistani market has tremendous potential for cellular operators who can tap 200 million population with wireless broadband solutions. (April 20, 2015) geo.tv

Ministry of Information Technology and Telecommunications (MoIT) has finalized draft of Telecommunications Policy-2015 and forwarded it to Economic Coordination Committee (ECC) of Cabinet for approval. This comes on heels of series of initiatives and achievements in the sector over the course of previous year. Minister of State for IT, Anusha Rahman while announcing finalization of the draft at a dinner had commented that the integrated Telecommunications Policy will be a roadmap for sector development for years to come with socio-economic development at its heart and professional belief that this will mark a graduating step in vibrant telecom sector of the country. She said the overall vision of new policy will be universally available, affordable and quality telecom services provided through open, competitive and well managed markets and ubiquitously adopted to benefit of economy and society. The telecom sector of Pakistan was deregulated in 2003 and those policies were subject to review after five years of issuance which unfortunately was not done during the term of previous government. Therefore, the elected government of Pakistan Muslim League-N, after taking office, took up review and integration of policies on highest priority basis. Ministry of IT had during the last year engaged renowned international consultant firm with the help of World Bank for assistance in the task in addition to commitment of human resource from the ministry, Pakistan Telecommunication Authority (PTA) and Frequency Allocation Board (FAB). Release of draft of the policy for approval, mark the culmination of rigorous exercise spanning over a year, she said. To ensure the element of inclusiveness, consultations with all relevant stakeholders were given foremost importance in the process through meetings, questionnaires, workshops etc, she added. She said the draft policy treats all important areas of telecoms, infrastructure, licensing, services and their ubiquitous adoption, adding besides covering the issue arising out of previous policy implementation, the manuscript includes various new and innovative elements like provisions for a new competition framework satellite communication, spectrum strategy, market based spectrum management, Over the Top services, convergence, communication security etc., which were not present in earlier policies. Anusha said appropriate realignment in the mandates and areas of focus of Universal Service Fund (USF) and National ICT R&D Fund have also been made to support the "Accelerated Digitization Goal" of the government for spurring socio-economic growth.
(April 4, 2015) thenews.com.pk

Qatar

Executive Director: Graeme Gordon
[Communications Regulatory Authority (CRA)]

In order to identify and understand the implications of emerging ICT trends, the Ministry of Information and Communications Technology has written this white paper that identify these ICT trends and build further awareness among policymakers and decision makers about the opportunities and challenges they offer. The

Ministry has launched a series of roundtables, inviting stakeholders in Qatar with relevant expertise and experience on the particular topic. The roundtables serve not only to validate the findings from the Ministry's ongoing research and engagements, but also to add insights from other government agencies, private and public organizations, and academia. The Ministry is now publishing a paper describing seven trends identified in the first roundtable session to have a significant impact on the society of Qatar as a whole: 1) ICT for Smart Cities; E-health; E-education; Social Media; Cloud Computing; Big Data; E-commerce; Digital Convergence and IPv6 transition. 2) The Ministry is taking action to ensure the benefits of these emerging technologies are realized and maximized, including:

Initiating projects involving other ministries and government agencies; Forming cross sector work groups to ensure that policy actions and targets driving the rollout of high-speed broadband are implemented; Developing information and awareness initiatives to demonstrate to the public the opportunities emerging technologies bring; Assisting all sectors to adopt and benefit from these technologies; Addressing the privacy and security concerns associated with the technologies; Developing a digital media strategy for Qatar and Capitalizing on these technologies will help Qatar build the knowledge-based economy that will secure a prosperous future for Qatar and its people.

Established by the Cabinet in September 2013, the Qatar eGOV2020 Steering Committee developed the Qatar e-Government 2020 Strategy in February 2014, which was officially released in later May 2014.
(April 14, 2015) ictqatar.qa

The Qatar eGovernment 2020 Steering Committee continues its evaluation and follow-up meetings with the ministers to review work progress on the implementation of the Qatar e-Government 2020 Strategy. Chaired by Minister of Information and Communications Technology, the latest such meetings were held by the Committee over the past two weeks with Ministers of Finance, Development Planning and Statistics and Public Health. The ministers were briefed on work progress on implementing the Qatar e-Government 2020 Strategy, the projects that have been done and others underway. The meetings reviewed projects status, recommendations for each ministry's projects, challenges confronted and ways to overcome them. It has been agreed to establish joint task workgroups, under the Committee's supervision, to step up the pace of projects implementation. The ministers hailed the progress made on Qatar eGOV2020 and efforts being exerted by the Committee to take success to the next levels, and placed emphasis on meeting the projects timelines. Minister of Planning and Statistics stressed the importance of vital projects drawn in the Strategy and means to take advantage of the online data.
(April 4, 2015) ictqatar.qa

South Sudan

Minister: Rebecca Joshua Okwachi
[Ministry of Telecommunication & Postal Services (MoTPS)]

South Sudan plans to lay a fiber-optic cable to bring broadband Internet to its citizens in the next two years, its minister for telecommunications and postal services said. Africa's newest nation, which gained independence from Sudan in 2011 but was plunged into an internal conflict in December 2013, has telecoms operators such as Vivacell but lacks the infrastructure to offer high speed Internet connections. Rebecca Joshua Okwaci said late on Tuesday that the government will lay 1,600 kilometers of fibre across the country and link it with undersea cables via Uganda and Tanzania, at a yet to be specified cost. "I believe in a year and a half, going to two years, we can connect it," Okwaci told Reuters on the sidelines of an information communication technology meeting at the Kenyan coastal resort of Diani. The ministry said at the start of 2013 that it planned to lay a fiber-optic cable that year, before war broke out. Okwaci said the conflict that started in 2013 would not deter the ministry from its aim of linking South Sudan to the information superhighway, citing calm in places such as the capital. Thousands have been killed and more than a million people have fled their homes after the fighting that broke out following a dispute between President Salva Kiir and his former deputy Riek Machar. South Sudan is part of a single area network that brings together telecom operators in Kenya, Uganda and Rwanda and has greatly reduced cross-border call charges. (April 15, 2015) af.reuters.com

Saudi Arabia

Acting Governor: Eng. Habeeb K. Alshankiti
[Communication & Information Technology Commission (CITC)]

Research and Markets has announced the addition of the "Managed Services Market in Saudi Arabia 2015-2019" report to their offering. The Saudi Arabia to grow at a CAGR of 22.60% over the period 2014-2019. This report covers the present scenario and the growth prospects of the Managed Services market in Saudi Arabia for the period 2015-2019. The market is categorized into four main segments: Hardware and Software Support, Data Center Hosting, Disaster Recovery Support, and Security Support. The growing role of cloud and virtualization solutions is one of the major trends, which is expected to boost the growth potential of the market. Private cloud solutions enable better security and improve control of critical data and business operations. According to the report, the growing need for cyber-security is a major driver, which is expected to fuel the market growth during the forecast period. Newly adopted technologies warrant increased security measures to ensure the safety and privacy of company data. (April 21, 2015) prnewswire.com

Saudi Arabia continues to boast the largest telecoms and enterprise IT market in the Middle East and Africa region (MEA), although total mobile and fixed services revenues declined in 2014 for the first time in a decade. According to a new report by Pyramid Research, total mobile and fixed services revenues in the consumer and enterprise segment in Saudi Arabia fell by 1 per cent to $16.2 billion (€15 billion) in 2014. The drop was attributed to aggressive promotional activity and Mobily's restatement of financial results: the country's second-largest operator saw revenue decline by 20 per cent in 2014. Nonetheless, Pyramid Research said the Saudi Arabian telecoms market remained the largest in terms of total service revenue in the MEA region in 2014, followed by South Africa ($13.4 billion) and Turkey ($13 billion). The research company also expects to see further growth ahead: it forecasts that over the next five years, annual growth of the Saudi telecoms market will average 3 per cent per year, reaching $18.7 billion by 2019. "Operators have invested in upgrading network infrastructure and systems to handle growing data traffic volumes. The need in the short-term is for swift deployment of fiber connectivity in high demand areas such as Riyadh, Jeddah, Mecca, Medina and Al-Ahsa. This will improve the competitive landscape in the fixed broadband services segment, where historically the incumbent operator, STC, has led," said Hussein Ahmed, analyst at Pyramid Research. In the mobile market, the arrival of mobile virtual network operators (MVNOs) such as Virgin Mobile and Lebara is also expected to add fresh impetus with new promotions for data and voice services. "Towards 2019 we will see the potential for improvements in the competitive landscape, while operators remain persistent in identifying new revenue streams," Ahmed added. (April 13, 2015) fiercewireless.com

Tunisia

President: Mr. Hassoumi Zitoune
[National Telecommunication Commission (INTT)]

Sector watchdog the National Telecommunications Commission (INT) has postponed the deadline for contributions on its public consultation regarding the introduction of 4G in Tunisia from April 3 to April 15. The regulator opened the consultation process on 18 March, inviting comments on a range of issues relating to the introduction of 4G, including the preferred frequency bands and how much spectrum would be required, as well as the possibility of sharing network elements. The regulator has also raised the possibility of introducing a fourth player into the market. INT highlighted seven potential frequency bands as usable for 4G, but acknowledged that two of the best candidates, the 1800MHz and 800MHz ranges, are currently being used for GSM and analogue TV services, respectively. 800MHz frequencies are expected to become available for refarming from June 30, 2015, however, when the country is due to complete the transition from analogue to digital TV. The other spectrum bands identified by the watchdog as usable for 4G services were 450MHz, 1700MHz, 2100MHz, 2300MHz, 2500MHz and 3400MHz-3600MHz. (April 1, 2015) telegeography.com

Turkey

Chairman & CEO: Dr. Tayfun Acarer
[Information & Communication Technologies Authority (BTK)]

Türk Telekom offered on April 22 to buy the remaining $300 million stake it doesn't already own in mobile company Avea, a deal that would allow it to avoid having to float the struggling wireless firm. Saudi-

owned Türk Telekom, which also reported a 93 percent drop in quarterly earnings, owns 90 percent of Turkey's third-largest mobile company, with the remainder held by lender İş Bank and other investors. Under a 2006 shareholder agreement, IS Bank retains the right to demand an initial public offering this year, a floatation that would likely be hampered by Avea's weak earnings, analysts said. "Even if Avea is advancing towards profitability, right now it is still not profitable," said Toygun Onaran, an analyst at TEB Invest. "It is logical for İş Bank to want to offload the shares." Türk Telekom did not say how much it would pay for the Avea stake, which it said had a "nominal value" of 820 million lira ($300 million). That would value the company at $3 billion. That's a "very high" valuation, Onaran said, adding he estimated Avea was worth around 40 percent of that. Like many telephone companies, Türk Telekom faces a gradual decline in demand for fixed-line services, meaning the performance of its mobile arm is critical. But Avea is in a tough position as the third player in a market dominated by Turkcell and, to a lesser extent, Britain's Vodafone. Türk Telekom's majority shareholder, Saudi Oger, faces a similar fight in South Africa, where it owns struggling mobile company Cell C, which is also third-ranked in a competitive market. The fixed-line company reported a big fall in first- quarter net profit, hit by higher capital spending and the sharp decline in the Turkish lira. It has overseas operations and most of its currency exposure comes from financial liabilities and trade payables, it said. Türk Telekom said it was "continuing to evaluate" participation in a tender for 4G frequencies, the bids for which are due on May 26. The future of that tender was thrown into doubt this week, when President Tayyip Erdoğan said Turkey should wait and then jump straight to 5G. (April 23, 2015) Hurriyet Daily

Telecoms regulator the Bilgi Teknolojileri ve Iletisim Kurumu (BTK) has announced a date for the country's upcoming multi-band spectrum auction, confirming that the process will take place on May 26, 2015. Meanwhile, the expiration date for the licenses has been set at April 30, 2029. The BTK has said that it expects commercial Long Term Evolution (LTE) services to be available from January 1, 2016, although previous claims from Turkcell, Avea and Vodafone Turkey suggest that they will be in a position to roll out their respective 4G networks far sooner. 20 spectrum lots across the 800MHz, 900MHz, 1800MHz, 2100MHz and 2600MHz bands will be made available, with a total bandwidth of 390.4MHz going under the hammer. Meanwhile, a block of 2600MHz spectrum will also be reserved for a new market entrant, although the newcomer will not be obliged to launch GSM services. The combined floor price for the licenses on offer has been set at EUR2.298 billion (US$2.433 billion). (April 16, 2015) telegeography.com

United Arab Emirates

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

The General Authority for Regulating the Telecommunications Sector (TRA) has instructed the nation's licensees to allow people with disabilities easier access to telecommunications services in order to completely benefit from them. This effort also includes

ensuring that the principle of equality is applied, making equal opportunities available between various societal demographics and segments. Hence permitting the national talent to participate in the growth and development processes currently taking place in the UAE. The instructions state the importance of the active role played by the telecommunications sector in the provision of these services, which contribute to the social integration of people with disabilities. As such, empowering them to live independently as well as creating conditions for them to work within the ICT sector. "The direction taken for people with disabilities is part of our social responsibility program in the country. By providing such services, we are prompting these citizens to take advantage of the remarkable evolution and rapid growth of the UAE's ICT sector. We urge licensees to diversify their methods of providing smarter services, in order to provide accessibility to all segments of our society, including those with disabilities," said Hamad Obaid Al Mansouri, TRA Director General. "We aim to provide all the reasons that allow us to successfully become leaders in the field of national services for people with disabilities we have a firm belief of taking advantage of all competencies and human resources we have in the UAE who can partake in engaging in the industry's comprehensive and integrated development process. Those with disabilities have been able to prove themselves in many fields by showing their capabilities to adapt to different work conditions and expectations, positively reflecting on their productivity and distinctiveness," H.E. added. The UAE TRA will ensure that no obstructions interfere with the provision of services for this group, and that licensees provide services to ensure that all segments of society are included fairly. The TRA will conduct surveys targeted specifically towards people with disabilities to determine the extent of their satisfaction and happiness with the services. They will also be given priority in the completion of their transactions. All employees in the sector will be trained on the various services, solutions and products that are designed to understand the needs of people with disabilities. (April 15, 2015) samenatoday.com

The initiative, dubbed 'Secure Your Mobile', is being introduced in an effort to reduce the number of missing or stolen phones in the country. The director of technology development affairs at the TRA, Saif bin Ghelaita, said: "With the UAE having the highest number of consumers of smart devices, we understand how valuable the devices have become to people in the UAE who nowadays use them as a primary means of computing. "Therefore, it is critical we help protect our residents by implementing systems with an easy mechanism to enable users to block stolen or lost mobile devices immediately after reporting them." None of the data will be accessible on the phone after it has been blocked and no calls or messages can be made either. The phone will be blocked free of charge, but users will have to pay a recovery charge to have the device made operational again. The executive vice-president of brand and communications at du, Hala Badri, said: "Protecting customers from electronic fraud is gaining increased importance in today's world that highly relies on digital connectivity." Fares Hamad Fares, vice-president of corporate communications at Etisalat, added: "We are contributing to the protection of our users' mobile devices and reducing the risk of theft of important personal data and misuse." (April 1, 2015) zawya.com

REGULATORY ACTIVITIES BEYOND THE SAMENA REGION

REGULATORY UPDATES

Albania

Albania's telecoms watchdog, the Electronic and Postal Communications Authority (AKEP) has received bids for spectrum in the 2500MHz-2690MHz band from Vodafone Albania and Albania Mobile Communication (AMC) and is set to issue notices on the allocations. The tender, launched by AKEP in February this year, offered access to 14 blocks of 2×5MHz and ten unpaired blocks of 5MHz, with base prices set at EUR750,000 (US$793,523) per block of paired frequencies and EUR60,000 per block of unpaired spectrum. Vodafone has applied for four blocks each of the paired and unpaired spectrum, whilst AMC has submitted an offer for four 2×5MHz blocks. Bids from both providers met the minimum price requirements. (April 14, 2015) telegeography.com

Australia

Building on early support from Australia, Asia and Latin America, the push for near universal adoption of the Asia Pacific Telecommunity 'APT 700 MHz band' is gaining momentum around the globe. 42 countries are now allocating, committed to or recommending the use of the band for advanced wireless broadband services. Eight networks have now been deployed across four countries that are already using this band. This includes Telstra and Optus in Australia who, having gained access to the 700 MHz band at the 'digital dividend auction' in 2013, have committed to rapid roll-out plans which will see both cover 90 per cent or more of the population by mid this year. This year has also seen the number of APT 700 MHz capable devices increase from 55 to 76 in a matter of months. In addition, it appears likely that Europe will at least partially harmonize with the APT 700 MHz plan, further increasing the benefits that come from international harmonization. 'Meeting demand for spectrum for advanced mobile broadband is not simply about quantity,' said ACMA Chairman, Chris Chapman. 'The quality and attributes of any new band, as reflected in the gathering level of adoption globally, will be equally critical to the consumer experience.' There are many benefits to consumers when industry and regulators achieve substantial international spectrum harmonization. Economies of scale enabled by this spectrum harmonization leads to materially cheaper Long Term Evolution (LTE) devices (including smartphones and tablets). International roaming is also made easier. One particular attribute of the 700 MHz band is its high utility: it is an excellent frequency for regional and rural areas where wide area coverage is required, while it is also useful for penetrating homes and buildings in metro areas. (April 14, 2015) cellular-news.com

Bosnia and Herzegovina

Telecoms regulator the Communications Regulatory Agency (CRA) has published its latest quarterly report on the country's telecoms statistics, revealing that at the end of 2014 mobile subscriptions were flat year-on-year. As at December 31, 2014 there were a total of 3.491 million wireless subscribers in the country, up marginally from 3.488 million a year earlier, the bulk of which – 90.87% – were pre-paid accesses. In terms of market shares, BH Telecom remained on top, increasing its slice of the pie from 44.36% at end-2013 to 46.95% a year later. By comparison, second-placed Telekom Srpske (m:tel) saw its market share fall from 42.05% to 39.60% over the same period, while HT Mostar (HT Eronet) remained in third place, accounting for 13.18% of the nation's wireless subscribers, down from 13.32%. Meanwhile, both of the nation's mobile virtual network operators (MVNOs) – IZI Mobile and BlicNet – remained minor players in the sector, with respective market shares of 0.23% and 0.05%. Fixed line voice access continued to decline, falling 7.4% to 782,236 at end-2014, with BH Telecom responsible for 44.61% of those (down from 47.47% a year earlier), while Telekom Srpske and HT Mostar accounted for 34.83% (end-2013: 34.57%) and 12.83% (12.89%), respectively. Alternative operators were responsible for the remaining 7.72% of fixed voice connections. In the fixed broadband arena the CRA reported a total of 542,405 connections at the end of 2014, representing a 5.2% year-on-year increase from 515,443. xDSL remained the most popular access type, with some 297,245 such connections in the country at the end of last year, up from 294,505 twelve months previously. Cable broadband, however, saw bigger gains, with the number of customers connected via such means standing at 181,753 at end-2014, up from 153,544 a year earlier. Fiber-based connectivity has yet to gain real traction, meanwhile, with the regulator reporting only 374 such broadband subscriptions at the end of the reporting period, up from 297 at end-2013.
(April 7, 2015) telegeography.com

Botswana

Minister of Transport and Communications, Tshenolo Mabeo, has said the delays in the planned initial public offering (IPO) in national fixed line operator Botswana Telecommunications Corporation Limited (BTCL) were due in part to problems with the transfer of infrastructure from BTCL to national networks firm BoFiNet. Responding to questions in parliament, Mabeo said that the original 'Possession and Use' agreement, which was due to be signed last November ahead of the planned IPO the following month, was not 'fit for purpose', according to a report from state news agency BOPA. The BTCL transaction advisors, Collins Newman and Deloitte Consortium, said that a new Possession and Use document should be drafted, and this was eventually signed on March 4, transferring all BTCL infrastructure to state-owned BoFiNet, which was established in 2012 to take over the running of the country's telecoms networks, with BTCL acting purely as a service retailer. Having initially been planned for 2011, the sale first ran into problems in 2012, before an IPO was cancelled in August 2014. The offer was then rescheduled for November 7, but problems with the sale of shares to employees caused yet another postponement to end-December. This date too was missed and the government has yet to announce a new schedule for the listing. 44% of BTC's shares will be available for purchase by individual investors and Batswana companies, while 5% will be reserved for the telco's employees through an Employee Share Ownership Program (ESOP).
(April 9, 2015) telegeography.com

Brazil

A law dictating new standards on mobile infrastructure deployment and sharing, the 'Antenna Law' (Law 13,116 / 2015), has entered into force having been signed by Brazil's President Dilma Rousseff and published in the federal Official Gazette on 22 April 2015. According to Brazil's Minister of Communications Ricardo Berzoini, quoted in the Presidential web portal blog, the aims of the new law include reducing the duplication of mobile network antennae in urban areas via a requirement for cellular operators to share infrastructure, whilst encouraging investment in expanding network service footprints, thereby improving the availability and quality of mobile voice and broadband services. In addition to laying down guidelines on sharing newly deployed infrastructure, the Antenna Law also makes it compulsory to share the excess capacity on existing mobile network sections, while the measures are also expected to achieve environmental benefits, the blog added. The ambitions of the original Antenna bill were subsequently reined in by a total of six vetoes from various state departments. In one such veto, the Ministry of Finance argued that despite the worthy goals of some of the more far-reaching proposals, it opposed certain proposed measures which it said would have 'assigned to the government a significant part of the definition of investment strategies of companies providing telecommunications services', with the ministry furthermore explaining that '[in proposing] a specific procedure for monitoring instead of setting quality goals, provisions of the [vetoed] articles could hamper differentiation and technological innovation to improve the service by providers and thus restrict competition.'
(April 24, 2015) Teletime

A group of Brazilian mobile operators which secured frequencies in last year's 700MHz band spectrum auction have paid the EAD – an entity created by the companies to support the transition of analogue channels to digital – BRL1.44 billion (US$46.94 million), or 40% of the money needed to support the switchover. The remaining funding is expected to be deposited in two installments over the next two years. National license winners Claro, Vivo and TIM Brasil will each contribute BRL1.19 billion to the fund, with a minor contribution (BRL18 million) from regional player Algar Telecom, which won 700MHz frequencies in the states of Goias, Minas Gerais, Mato Grosso do Sul and Sao Paulo. Oi, Brazil's fourth largest mobile operator did not participate in the auction. The auction of 700MHz Long Term Evolution (LTE)-suitable spectrum in Brazil concluded in September 2014, generating a total of BRL5.85 billion – well below regulator Anatel's BRL7.71 billion target. The use of the 700MHz spectrum band, currently in use by TV broadcasters, is expected to allow the operators to extend their LTE networks into rural areas; currently 4G in Brazil is provided using the 2500MHz band, which was auctioned in June 2012. Although the government originally hoped that the analogue switch-off would take place in 2016, there will now be a staggered transition between 2015 and 2018. (April 13, 2015) telegeography.com

Chile

Chilean telecoms regulator SUBTEL has finally begun the long-delayed process of allocating frequencies in the 700MHz band won by Entel, Claro and Movistar in February 2014. The process was delayed by legal challenges against the award process by several operators, including mobile virtual network operators

(MVNOs) Netline and Telstar, which claimed that certain aspects of the tender prevented them from bidding. Whilst the matter has cleared the legal deadlock, the allocation process may still take as much as six months to complete, a representative for SUBTEL explained. Last month, another cellco, Nextel, is also looking to acquire 700MHz frequencies and has offered to barter some of its existing AWS spectrum holdings (1700MHz/2100MHz) for reserved airwaves in the lower band.
(April 21, 2015) Diario Financiero

Chilean cellco Nextel is forging ahead with plans to launch 4G services in the AWS spectrum band (1700MHz/2100MHz), but is willing to trade frequencies in that block for 700MHz airwaves, which would improve the network's performance, the new CEO of Nextel, Chris Bannister – who was appointed following the company's acquisition by UK-based investment fund Novator in January 2015. The cellco is set to launch Long Term Evolution (LTE) services this year, but is looking to gain access to other spectrum bands to augment its offering. Mr. Bannister noted that although the highly sought-after 700MHz frequencies were 'awarded to Movistar, Entel and Claro in a public competition, to which only they were invited, there is a 20MHz lot that Subtel is allowed to use for an emergency network,' adding that it is the spectrum in the reserved band that Nextel is currently lobbying for. The official went on: 'The 700MHz helps improve network performance and, like other carriers, which have two bands, we believe it would be beneficial to the consumer for companies to compete on equal terms, without distortions generated by regulatory or licensing issues.' Showing its willingness to negotiate on the matter, Nextel said it would be happy to return some of its other spectrum holdings to be used for the emergency network. (April 14, 2015) Diario Financiero

European Union

The European Commission will consider the competitive threat posed to telcos by over-the-top (OTT) service providers like Skype and WhatsApp when it adopts new regulations for the sector next year. According to a draft document reported on by Reuters on Monday, Brussels has acknowledged that online players compete with network operators but are not subject to the same regulatory regime. "It is necessary to design a fair and future-proof regulatory environment for all services," the document said. Should OTTs have to comply with the same rules as telcos, then players like Skype would be obliged to offer emergency calling services, for instance. Europe's big incumbents have for a long time called on Brussels to ease regulations on telcos in the face of sliding revenues and growing competition from OTT service providers. Telco revenues are "being cannibalized by OTTs that are asset light and offering a service that is zero-rated...Yet everyone around us is asking us to spend more on infrastructure," said Tim Höttges, CEO of Deutsche Telekom at Mobile World Congress in March. "We want a level playing field with Internet companies. We don't want to push them into regulation, but if they're out of regulation, we want to be out of regulation," he said. Höttges and his counterparts will doubtless welcome Monday's news. According to Reuters, the Commission aims to update its telecoms regulations in 2016. In addition, Andrus Ansip, vice president for the digital single market, is expected in early May to add further detail to the digital single market strategy he outlined in March.
(April 20, 2015) totaltele.com

The European Commission is due to issue its verdict by June 1 about whether to approve Orange's acquisition of Spain's Jazztel, after the French incumbent submitted further concessions to the competition watchdog. The review process was put on hold almost two weeks ago and resumed again on Friday last week. Neither Orange nor the Commission commented on the reason for the suspension. However, it is understood that the EU had requested further documentation relating to the acquisition from Orange. The telco said at the time it remained confident that the Jazztel deal will be approved. Orange initially aimed to complete the acquisition in the first half of the year. It has given no indication that this timeframe has changed. Orange made a €13-per-share offer for Jazztel in September, valuing the fixed-line provider and MVNO at €3.4 billion. The combination of Orange Spain and Jazztel will create Spain's second-largest integrated service provider. At the end of 2014, the companies together had 3.5 million fixed broadband and 14.5 million mobile customers. The prospect of this combined strength was enough to prompt the European Commission to launch an in-depth probe into the transaction due to concerns that the merger would hurt competition in the fixed broadband and triple-play markets. (April 1, 2015) totaltele.com

France

The French parliament has approved an amendment to the telecoms component of France's economic reform law 'Loi Macron', under which telecoms operators will be required to improve mobile coverage throughout the country. Under the new legislation, existing gaps in 2G network coverage in rural areas must be addressed by 2016, while all unserved municipalities in these 'white areas' should be covered with 3G/4G networks by 2017. The law will ensure that residents of an estimated 170 municipalities which currently have no access to mobile services will be covered by mobile networks. Further, Loi Macron entrusts telecoms regulator Autorite de Regulation des Communications Electroniques et des Postes (ARCEP) with powers to sanction mobile network operators (MVNOs) who fail to comply with the imposed obligations. (April 20, 2015) Les Echos

ARCEP published the results of its public consultation into the forthcoming auction of 700 MHz spectrum in France, and said it expects to get the ball rolling this summer. France's mobile network operators were among the 46 respondents and, keen to protect their own interests, they did not always agree on the best route forward. In one particular area, Iliad's Free Mobile found itself at odds with its three main rivals: the need – or otherwise – for spectrum rebalancing via the auction. "[Some respondents] consider that there is no need to rebalance frequencies between mobile operators through the allocation of the 700 MHz band since the current holdings result from previous allocations or rebalancing exercises where competitive constraints have been taken into account," Arcep said in its results document. Specifically, the mobile operators note that Free Mobile would be the main beneficiary of such a move. They claimed that Free has already benefitted from rebalancing in the 900 MHz and 1800 MHz bands, and subsequently had the same opportunity as they did to acquire new spectrum in various bands including 800 MHz. In addition, they insisted that Free Mobile has already overcome any disadvantage in sub-1 GHz spectrum by being allowed to roam on Numericable-SFR's 800 MHz infrastructure. Unsurprisingly, Free Mobile's parent was the lone voice of dissent. "One operator (Iliad) believes it necessary

that each of the four operators should have an equal quantity of low band spectrum," Arcep said. While some operators support a cap on the amount of spectrum any one player can purchase through the auction, Iliad called for a cap to be applied across all sub-1 GHz bands, and not just the 700 MHz spectrum. The document also covered the division of the available 700 MHz spectrum into blocks, mandated roaming, network sharing, spectrum refarming and various other topics. The regulator will use the information contained in the responses to help it formulate its plans for the spectrum auction. It is working on drafting a call for applications, with a view to issuing that call in July. (April 1, 2015) totaltele.com

Finland

An in-depth investigation over proposals made by FICORA, the Finnish telecoms regulator, for new rules on mobile termination rates (MTRs) has been launched by the European Commission (EC). Confirming the development in a press release, the European body claimed: 'If adopted, the new rates in Finland would not be based on costs as would be incurred by an efficient operator as set out in the European Union (EU) recommended approach for the calculation of MTRs. They would also be more than 25% higher than the EU average MTRs which follow the recommended approach.' As such, the Commission has argued that the MTR proposals could harm both competition and consumers. According to the EC, FICORA's proposal to allow Finnish mobile network operators to recover in the MTRs other costs than those strictly related to the incremental costs of provision of the wholesale termination services would lead to significantly higher termination rates. For its part, in a separate press release FICORA argued that its regulatory proposition promoted competition. Noting that the Information Society Code, which is in force in Finland, did not enable the use of the cost calculation model recommended by the EC, the Finnish watchdog claimed to have proposed stricter regulation and a 'significant' reduction in interconnection fees. As per the proposition, FICORA had suggested that MTRs should not exceed EUR0.0125 (US$0.0135) per minute, effectively meaning a 33% reduction from the current level. Commenting on the plans, FICORA deputy director Marja Lehtimaki was cited as saying: 'We regard that the cost calculation model we use is appropriate and the price level achieved by means of it is reasonable.' Nonetheless, the EC now has three months to discuss the matter with FICORA, in cooperation with the body of European regulators (BEREC), with a view to making the proposals compliant with EU law. During this period FICORA is prohibited from adopting the proposed measures, while at the end of the investigation period the EC may either lift its reservations or demand that the withdrawal or amendment of the Finnish regulator's proposed measure. (April 1, 2015) telegeography.com

Germany

The German spectrum auction for in the 700 MHz, 900 MHz, 1,500 MHz, and 1,800 MHz bands will start on May 27 with three participants: Telekom Deutschland, Vodafone Germany and Telefonica Deutschland, according to the German network regulator BNA. BNA President Jochen Homann expects the auction should result in a faster roll-out and more mobile broadband coverage in Germany's rural regions. The total spectrum up for sale in the auction amounts to 270 MHz. This includes 2x30 MHz in the 700 MHz band freed up from

the switch to DVB-T2 technology. The spectrum will be split into lots of 2x5 MHz. Minimum bids will be based on fees set in 2013, namely EUR 75 million per lot. The 700 MHz licenses will include additional conditions such as nationwide (98%) coverage of at least 10 Mbps mobile broadband services with at least 95 percent of all states and 99 percent of all city states covered as well as 100 percent of the federal highways and ICE train tracks. If these conditions are not reached within three years after the start of the license, a deployment obligation will be enforced with a reasonable time-frame. The 900 MHz and 1,800 MHz spectrum are currently in use for GSM services. To protect the current infrastructure, BNA has set a cap of 2x15 MHz per provider (3 blocks) with a minimum bid of EUR 75 million for the 900 MHz band. A 1,800 MHz block will cost a minimum of EUR 37.5 million and a 1,500 MHz block is to cost at least EUR 18.75 million. The licenses will be technology-neutral and valid until December 31, 2031. This auction is the second multiband auction in five years, following the auction in 2010 that included 800 MHz spectrum and ended with a yield of EUR 4.385 billion. (April 22, 2015) telecompaper.com

India

The number of fixed and mobile subscribers in India is likely to reach the 1 billion mark sometime this month, if recent growth rates are maintained. The country was home to 987.3 million telecoms subscribers at the end of February, having added just over 8 million during the course of that month and 16.3 million since the start of the year, according to new figures released by the Telecom Regulatory Authority of India (TRAI). As such, India could well exceed 1 billion subscribers when the regulator releases its report for April. All the growth is coming from the mobile sector. India recorded 8.24 million net mobile customer additions in February, giving it a total of 960.6 million mobile subs, while its fixed-line base slipped by 150,000 to 26.72 million. Teledensity stands at close to 79%, but is heavily skewed towards urban areas. In rural India teledensity is just 47.16%. In the mobile space India's top five operators – Bharti Airtel, Vodafone, Idea Cellular, Reliance Communications and Aircel – together added 9.75 million customers in February; Bharti alone added more than 3 million, increasing its mobile market share to 23.2%.And Telenor's Uninor recorded more than 665,000 net additions, maintaining its market share at 4.7%.State-owned BSNL was the weak link. Its mobile customer base shrank by 2.55 million, while it also lost almost 163,000 fixed line customers. The strongest performer on the fixed side was Bharti, which grew its customer base by nearly 12,000. BSNL still controls 62.3% of India's fixed lines, with sister company MTNL coming in second with 13.2%. Bharti is hot on MTNL's heels though, increasing its market share to 12.7%, up by one percentage point over the past year. (April 13, 2015) totaltele.com

Indonesia

The Indonesian Telecommunications Regulation Body (BRTI) has warned that as many as 180 million mobile phone users in the country will be affected by 'network problems' whilst using their phones between mid-April and December 31, 2015. According to the report, the interruptions in service are the result of issues in the reallocation of 1800MHz frequencies by the big four mobile operators – Telkomsel, XL Axiata, Indosat and Hutchison 3 Indonesia – which are affecting voice calls, SMS and data access services that use either GPRS or EDGE technology on the cellcos' systems. BRTI committee

member Muhammad Ridwan is quoted as saying that the communication and information minister Rudiantara had ordered that the frequency allocation process start before April 14, 2015. The minister will soon issue a decree to regulate it, and notes that operators should advise customers about the possible drop in service quality during the roughly nine-month period. 'So far, the 1800MHz spectrum with a bandwidth of 75MHz has been home to 180 million mobile phone users, for 2G access, who are served by Telkomsel (22.5MHz), XL Axiata (22.5MHz), Indosat (20MHz), and Hutchison 3 Indonesia (10MHz). The reallocation will eventually be used for 4G LTE which provides much higher speed for mobile devices,' he said. (April 8, 2015) detik.com

Kenya

The Communications Authority (CA) of Kenya has given mobile operators Airtel and Telkom Kenya (Orange) approval to start testing 4G technology using their current spectrum allocations. Safaricom, the country's largest wireless operator by subscribers, is currently the only player to have launched a commercial LTE network, which was switched on in parts of Nairobi and Mombasa in December. 'So far all the NFP [Network Facility Provider] Tier 1 licensees have been authorized to carry out tests [of 4G] on the spectrum they are already using,' the regulator's director-general Francis Wangusi was quoted as saying, adding that mobile operators were being encouraged to re-farm their existing frequencies and roll out national 4G networks that would allow them to share the capacity with other players. However, Telkom Kenya CEO Vincent Lobry said that the firm has not yet initiated trials of LTE on its network, as it is currently focusing on optimizing its 3G services, which are available in 41 areas across the country. 'Having the license is one thing, acquiring the bandwidth and capacity compatible with LTE is the other part of the equation. The industry regulator needs to provide the mechanism on how such frequencies will be allocated/ sold to all players in the sector... A commercial rollout of 4G by Orange Telkom Kenya will be advised by our Strategic Plan as we look forward to providing the 'services of the future' to our customers in the long term,' he revealed. (April 23, 2015) Business Daily

Oscar Leon Suarez, director of Colombia's National Spectrum Agency (ANE) stated this week that the 700MHz frequency band will be cleared for 4G cellular network usage by the end of August ahead of an auction of 90MHz in the band later in the year alongside additional frequencies in the 900MHz, 1900MHz and 2600MHz ranges. The auction plan had been delayed from an earlier mooted H1 2015 timetable. As reported by Signals Telecom, there are six remaining television broadcast channels (out of an original 16) which must complete the process of migrating to other spectrum bands in the coming months. Other details of the auction are yet to be decided, such as the minimum bid price for licenses. Colombian cellcos currently operate 4G LTE services using the 1700MHz/2100MHz (AWS) and 2600MHz bands. (April 24, 2015) telegeography.com

The Communications Authority of Kenya (CA) has revised the penalties that telecoms operators will have to pay if they fail to meet quality of service (QoS) standards. From the beginning of July, telecoms companies will be fined 0.1% of their annual revenue for missing service quality targets, instead of the current flat rate of KES500,000 (US$5,250). 'The issue of poor quality of services by telecommunication operators to subscribers has not

been adequately addressed. We agreed on the new penalty of 0.1% of the annual turnover to be paid by firms that will not meet the set QoS thresholds,' Mr. Wangusi has warned. However, he added that licensees that miss service quality targets will be given an opportunity to remedy the contravention; the penalty will then be enforced if the company fails to resolve the issue.

In the past, Kenyan operators have disputed the CA's assessment of QoS, prompting the regulator to agree to hire an independent firm to conduct the service quality tests. The CA says that 14 firms have expressed an interest in participating in the tender, with the successful candidate expected to begin work in July.
(April 21, 2015) Business Daily

Macau

The result of the spectrum allocation for Macau's four mobile operators to provide fourth-generation wireless (4G) telecommunication services should be announced by the 'second or third quarter', the Bureau of Telecommunications Regulation's (DSRT) Hoi Chi Leong confirmed. The Bureau is currently studying the applications for operators' plans to provide 4G services to the city later in the year, Mr. Hoi told us. The telecom regulator announced in early March that the four mobile operators that have won the licenses to run the 4G telecom services are Companhia de Telecomunicações de Macau SARL (CTM), China Telecom (Macau) Company Ltd., Hutchison Telephone (Macau) Company Ltd., and SmarTone - Comunicações Móveis, S.A. As required by the government, the license winners will have to launch the 4G mobile broadband service coverage of 50 per cent of the city by the end of this year, and 100 per cent by 2016. Speaking to Hong Kong media following a shareholders' meeting on Tuesday, executive director and chief executive officer of CTM's parent company Citic Telecom International, Lin Zhen Hui, said the group hoped to see the spectrum allocation result for 4G services by the first half of this year. Mobile operators running 4G services in Macau did not get the spectrum allocated through bidding but via government allocation, Mr. Lin explained. Operators can apply to increase the use of spectrum from the government if demand requires, the Citic Telecom's boss said. Mr. Lin added that the offering of 4G services will become a new driver of the group's business. The DSRT's head talked briefly to Business Daily after meeting local activist group Association Choi In Tong Sam - a unit that is under the city's traditionalist Federation of Trade Unions labor group. The Association, led by Mr. Lam U Tou, requested the government to help provide telecom users' real-time information of data usage, which is currently absent from the telecom operators' services. Mr. Lam's association also demanded a compulsory arbitration mechanism for disputes related to telecom services, as such disputes have topped the Consumer Council's complaint cases received in recent years. (April 23, 2015) macaubusinessdaily.com

Mali

Mali is said to be examining the possibility of launching a tender for a fourth mobile concession later this year. At present there is a moratorium on offering another mobile license, with the state having agreed this as part of the concession handed to Alpha Telecom back in 2012. However, with this block on licensing due to be lifted later this year, and with Alpha still yet to launch a commercial service, it has been claimed that the government may look to offer another concession to a

company. While January 2014 saw Alpha Telecom begin the deployment of its infrastructure, legal and technical issues have continued to dog it. Indeed, amid claims that the company continued to struggle with the realities of rolling out its network, in November 2014 it was revealed that a prosecutor for the Ministre de l'Economie et des Finances had begun a preliminary investigation into the award of the license, following criticism of the process by the country's Office of the Auditor General at the start of the year, the ongoing delays in the introduction of a commercial service, and litigation linked to the payment of the fees for the concession. Last month, however, a meeting between Alpha Telecom and its partners saw the would-be operator make positive noises regarding a launch, with almost all of the company's mobile towers said to have been deployed, while highlighting the fact that it had made full payment for its concession to the state. As such, the company, which is expected to offer its services under the Atel-SA banner, said it was optimistic it would begin offering access to customers in the near future. (April 7, 2015) Agence Ecofin

Peru

Ministry of Transport and Communications (MTC) has published new legislation governing the installation of telecoms infrastructure aimed at speeding up and streamlining the process. The new Law for the Strengthening of Telecommunications Infrastructure Expansion sets out a standardized process and requirements for automatic approval to install mobile towers. Among the highlights of the legislation are a simplified procedure for environmental certification and methods of camouflaging infrastructure, the MTC noted, saying that antennas that are 'in harmony' with their surroundings will have less of a visual impact and be 'more friendly to the urban landscape'. Regarding concerns on the potential health implications of mobile towers, the MTC stressed that the regulations meet guidelines set by the World Health Organization (WHO) adding that the MTC checks radio frequency emissions, whilst a department of the ministry includes checks on emissions as part of the certification of equipment used in Peru. Also included in the legislation are sanctions for operators that infringe the rules and state officials that issue permissions outside of the boundaries of the new rules. Deputy communications minister Javier Coronado commented on the regulations: 'The deployment of telecommunications infrastructure is essential for the economic and social development of a nation... [The MTC] is seeking [to ensure] greater integration amongst Peruvians, that everyone has access to good coverage and a better quality [of service]. Thus, the Peruvian experience with communications will be more productive and efficient.' (April 24, 2015) telegeography.com

Portugal

Portuguese telecoms regulator ANACOM issued a decision on April 23, 2015 to launch a public consultation on the availability of spectrum in the 3.4GHz-3.8GHz wireless broadband frequency range. According to the watchdog's announcement on its website, the consultation is based on the principle of effective and efficient assignment and usage of the frequencies in question. ANACOM intends to gather the opinion of many market participants (manufacturers, operators, private and public authorities, users and others) on the use of spectrum available in the 3.4GHz-3.8GHz band. Interested parties must submit comments by May 25, 2015. (April 27, 2015) telegeography.com

Romania

Telecoms regulator ANCOM announced that a new competitive selection procedure will be held this year for wireless frequency licenses in the 3.4GHz-3.8GHz band. Current license holders in the band are: Orange, Vodafone, UPC, SNR and 2K Telecom. Rights to use the radio spectrum will come into force on January 1, 2016 for a period of ten years. Winners will be able to provide nationwide data and internet access via wireless broadband networks. (April 17, 2015) telegeography.com

Singapore

Singapore based transport group, SMRT Corp has confirmed that it is in exclusive talks to partner with OMGTEL in a bid for the country's fourth mobile operator license. OMG is a company set up by in-building mobile networks specialist Consistel. In a statement, SMRT said that the potential collaboration agreement will be for the provision of such services and/or goods as may be agreed between the parties and will seek to leverage on synergies that can be derived from the Company's extensive media presence and commuter reach. The company is also being offered an opportunity to invest up to S$34.5 million via an option to subscribe for shares in OMG. (April 22, 2015) cellular-news.com

Slovenia

Agency for Communications Networks & Services (AKOS) has opened a public consultation into the award of wireless broadband spectrum in the 700MHz band alongside frequencies at 1400MHz, 2300MHz, 3500MHz and 3700MHz. The multi-band auction is likely to be held next year, the regulator said. A conference is being held on 26 May to give the country's operators the opportunity to discuss the proposals. (April 23, 2015) telegeography.com

South Africa

The Independent Communications Authority of South Africa (ICASA) has defended its decision to reduce the level of asymmetry for smaller operators in the country's mobile termination rates (MTRs) for the period October 1, 2014 to February 28, 2018, saying that it 'disagrees with the Cell C view that the asymmetry levels are inadequate and will perpetuate market failure'. Cell C expressed its disappointment with the regulator's proposed termination rates shortly after their publication and accused ICASA of making 'a dramatic U-turn' by stating that 'the massive proposed reduction in asymmetry completely eliminates any pro-competitive remedy.' In January 2015 Cell C lodged an application in the High Court in Johannesburg requesting a review of ICASA's wholesale MTR regulations and seeking to obtain access to the information that led to the regulator's decision to further reduce the MTR tariffs. For its part, the regulator claims that 'international best practice is to provide asymmetry to new entrants for a very limited period only. The rationale for this is to achieve a balance between recognizing cost differences and perpetuating cost inefficiencies among later entrants.' Further, ICASA argues that its decision to determine the rates based on the operators' long-run incremental costs (LRIC), rather than at some rate above LRIC as was the case in the past, 'removes the market failure associated with above-cost pricing and itself provides considerable market

assistance to the smaller operators'. (April 8, 2015) TechCentral

The Independent Communications Authority of South Africa (ICASA) has published its final Radio Frequency Spectrum Regulations, following a public consultation launched in December 2014. The new legislation amends the Radio Frequency Spectrum Regulations of 2011 in order to align it with changes introduced to the 2005 Electronic Communications Act (ECA) by the Electronic Communications Amendment Act 1 of 2014. ICASA new provisions include: setting out a clear renewal process for spectrum licenses; outlining the consequence for failure to renew a Radio Frequency Spectrum License; safeguarding the rights of end-users prior to a licensee ceasing to provide services that require usage of spectrum; providing penalties for the contravention of section 31(1) of the ECA. Further, the authority has revealed its final Radio Frequency Spectrum Assignment Plan (RFSAP) for International Mobile Telecommunications (IMT), which outlines the regulatory and the technical conditions on the use of frequency bands in the country, including technical characteristics of radio systems, frequency channeling, coordination and details on required migration of existing users of the bands and the expected method of assignment of spectrum. (April 1, 2015) telegeography.com

South Korea

South Korean authorities are facing criticism for recent changes to the country's legislation which governs subsidies and discounts on mobile charges. Earlier this week the Korea Communications Commission (KCC) raised the maximum subsidy that customers can receive when buying a new handset to KRW330,000 (US$302), while that same day the Ministry of Science, ICT and Future Planning (MSIP) also increased the mobile charge discount rate that customers can opt for instead of a handset subsidy from 12% to 20%. Such action has, however, prompted disapproval from KCC board member Kim Jae-hong, who argued the revisions were excessive and unnecessary, saying: 'The move led by the ministry and supported by the commission is a misuse of financial resources and political measures of the future in advance by forcibly introducing short-term stimulus plans, passing the burden to the national economy three to four years later.' Specifically, Kim argued that the increase in the mobile charge discount rate would eventually discriminate against existing subscribers, noting: 'A recent statistic shows that only 1.7% chose the charge discount instead of subsidy … The rate hike will cause discrimination against the majority in exchange for the benefit for the small minority. An increase to 16% from 12% is enough. In this way, the subsidy cap increase is not needed and the discrimination against the absolute majority will not happen.' South Korea's Mobile Device Distribution Improvement Act came in to force on 1 October 2014, setting a subsidy ceiling of KRW300,000 with a view to normalizing handset prices and cutting monthly fees. (April 9, 2015) the Korea Times

Spain

Mobile network operators Movistar and Yoigo are reportedly facing a fine from sector regulator the Comision Nacional de los Mercados y la Competencia (CNMC), according to Expansion over a network sharing deal dating back to mid-2013. A high profile deal between Yoigo and Movistar was announced in August 2013, which the pair confirmed would allow the latter to offer 4G services over Yoigo's in-deployment LTE network. In return for granting Movistar access to its infrastructure, it was confirmed that Yoigo would meanwhile be allowed to market a converging product comprising its mobile services and Movistar's fixed voice and broadband services. Reaction to the tie-up from the country's other cellcos was less than favorable, with both Orange Espana and Vodafone Spain calling on the regulator to suspend the agreement. Now, with the CNMC having been scheduled to discuss the matter at a meeting yesterday (23 April), it is understood that the regulator is minded to levy the fine on the basis that the deal hindered competition. Specifically, one element of the agreement has reportedly caused concern for the CNMC, that being a clause which requires Yoigo to seek permission from Movistar to allow mobile virtual network operators (MVNOs) to offer 4G services over the Yoigo network. (April 24, 2015) telegeography.com

Movistar has agreed to sell a quarter of its spectrum holding in the AWS (1700MHz/2100MHz) frequency band to rival wireless provider Claro, but has been prevented from completing the transaction by the nation's regulatory authorities. Movistar was awarded the right to use 2×20MHz of 4G spectrum at 1710MHz-1730MHz/2110MHz-2130MHz in July 2013, but has agreed to offload 10MHz of its spectrum holding to Claro, which failed to secure any 4G spectrum at the auction, having lost out to a bid from Chilean-owned cellco Entel. According to Claro's legal director, Juan Rivadeneira, the Ministry of Transport and Communications (MTC) has had more than seven months to address the issue but has yet to authorize the handover. The official added that it had also approached Entel and Vietnamese-backed Bitel regarding a spectrum purchase, but had been rejected. (April 15, 2015) El Comercio

Sweden

In support of the Swedish government's decision to open the 694MHz-790MHz (700MHz or 'second digital dividend') band for mobile network usage from April 1, 2017, the country's telecoms regulator PTS has opened up a study to examine proposed mobile development in the band while also considering the need for measures to protect terrestrial TV from interference. The PTS notes that in addition to expanding the geographical coverage of mobile services, the introduction of 700MHz services should result in closing local 'white spots' in coverage, whilst also providing greater capacity for mobile broadband networks. It asserts that the mobile infrastructure to be established under 700MHz license requirements may be open to access by multiple operators. The PTS adds that previous reports suggested public funds will be available for 700MHz rollouts as a tool to improve coverage in areas where commercial interest is lacking. PTS supports this proposal and agrees with findings that publicly-funded rollout contracts are 'in many ways' a more efficient and precise instrument for improving coverage than the requirements stipulated under mobile spectrum licenses. At present, however, licensing coverage requirements are the main tool available to the PTS in this regard. To date, coverage requirements under licensing have been stipulated by the PTS based on: percentage of geographic area (450MHz and 900MHz bands), population coverage (2100MHz band) and, in the 800MHz band, a specific list of individual addresses lacking broadband coverage. As it stands, the PTS sees that it is justified to attach coverage requirements to 700MHz licenses; the coverage should enable voice and data services 'up to around

10Mbps'. The authority added: 'A similar approach as for the 800MHz allocation is then a possibility, i.e. a form of allocation where there is a bid in cash and where the licensee shall develop, at a cost equal to the bid amount. The expansion would, however, in this case primarily focus on geographic areas with poor mobile coverage, unlike the coverage requirement in the 800MHz band that focuses on broadband of at least 1Mbps to households and workstations.' (April 20, 2015) telegeography.com

Thailand

The telecoms regulator the NBTC has stated that the individual mobile frequency spectrum cap to be applied to the country's cellcos will be set at 45MHz ahead of the 4Q15 1800MHz and 900MHz license auctions, lower than the previously mooted 50MHz limit, while NBTC secretary-general Takorn Tantasit noted that the spectrum cap applies only to bandwidth which is in use and 'not expiring within the next five years'. Five companies have so far lined themselves up to compete for four licensed blocks – two blocks of 12.5MHz in the 1800MHz band and two of 10MHz in the 900MHz range – namely existing private sector cellcos AIS, DTAC and True plus state-owned CAT Telecom and another Thai group, Jasmine International, parent of fixed network operator Triple T Broadband (3BB). Meanwhile, another possibility of a further postponement to the already-delayed technology-neutral spectrum auction is possible, Telecom Asia adds. A 'three month' delay could be on the cards in order to accommodate DTAC's offer of early return of an additional 1800MHz GSM block for re-auction as 4G spectrum, while the extra period could also be used to refarm spectrum so that standard 10MHz blocks in the 1800MHz range can be auctioned instead of the proposed 12.5MHz blocks, according to Boonyavat Kruahongs, chairman of the inspection and evaluation committee – a.k.a. the NBTC 'superboard'.

(April 9, 2015) Telecom Asia

The telecoms regulator NBTC has once more enlisted the help of the International Telecommunication Union (ITU) to re-evaluate the starting bid prices for the 1800MHz and 900MHz spectrum on offer in the newly rescheduled November/December 2015 technology-neutral license auctions. The original minimum bids for the delayed auctions were set at 70% of full spectrum value by the ITU last year, with bids for a 12.5MHz block of 1800MHz bandwidth beginning at THB11.6 billion (USD356 million), with a THB11.26 billion floor price attached to 10MHz of 900MHz spectrum. (April 2, 2015) telegeography.com

Trinidad and Tobago

The Telecommunications Authority of Trinidad & Tobago (TATT) has recommended to Cabinet the company it has chosen to be the country's third mobile network operator, Science and Technology Minister Rupert Griffith confirmed. Although the company is yet to be publicly identified, Griffith said: 'This third mobile service provider will boost competition and yield to the consumer greater affordability, wider choice and faster speeds among other benefits.' The minister made the disclosure during an address at Arthur Lok Jack Graduate School of Business in Mount Hope, in which he also highlighted results of the WEF Global Information Technology Report 2015 which ranked Trinidad & Tobago at the top of the world rankings for mobile penetration. He confirmed the proposed third cellco was recommended based on an evaluation of

service providers who responded to the TATT's recent Request For Proposal (RFP), and stated his confidence that the market would see a competitor to incumbents Digicel and Telecommunication Services of Trinidad & Tobago (TSTT) 'very soon'. In August 2014 TATT was reviewing four applications received in its RFP tender for a third mobile operator, namely: Cable & Wireless Communications (CWC, the 49% shareholder of mobile/fixed operator TSTT, which is 51% state-owned), cableco Columbus (Flow Trinidad & Tobago, which was acquired by CWC in a deal completed at the end of March 2015), Star Mobile Caribbean (a Trinidad-registered company) and Telesur (a full-service telco in Suriname). Any choice of new mobile licensee other than UK-backed CWC or its new asset Flow would mean a major upheaval in the local market as the British group would lack a cellular presence. Last month the TATT gave its approval to the acquisition of Columbus Communications (Flow) by CWC on condition that the latter offloads its 49% stake in TSTT. (April 16, 2015) Daily Newsday

Ukraine

The National Commission for the State Regulation of Communications & Informatization (NCCIR) adopted a decision at its meeting of April 22, 2015 on the harmonization of technical specifications for the conversion of 2100MHz radio frequencies from military use to commercial mobile operators under the recently awarded 3G UMTS licenses. The decision was based on a review of the technical specifications submitted by Kyivstar, MTS Ukraine and Astelit, who were announced as the winners of three 2×15MHz licenses on February 23, 2015, subsequently paying a total of UAH8.770 billion (US$311 million) in one-off fees for their 15-year concessions. The total cost of the conversion of UMTS frequencies from military use – roughly UAH1.6 billion – is to be divided equally among the winners and added to the basic license acquisition fee, and at the meeting the NCCIR noted that the three operators were required to inform it of 'contracting' the conversion within two months of the announcement of the license auction results. (April 24, 2015) telegeography.com

United Kingdom

U.K. regulator suggests four bands in the 6 GHz-100 GHz range are suitable for next-generation mobile services. OFCOM identified four frequency bands in the 6 GHz-100 GHz range that it believes offer the best potential for use as 5G spectrum. The U.K. regulator has suggested that the 10 GHz, 32 GHz, 40 GHz, and 66 GHz bands would be appropriate for use for next-generation mobile services (see table). The proposal is based on a combination of in-house analysis, a report by consultancy Quotient Associates, and responses to a consultation that OFCOM launched in January. "We believe it is desirable to identify specific potential bands above 6 GHz to help focus an agenda item for the World Radio Communication Conference in 2019 (WRC-19) and to maximize the potential for international harmonization of 5G spectrum," said OFCOM. "We have therefore identified a preliminary set of bands in different parts of the 6 GHz-100 GHz range that we currently believe offer the best potential for use in the U.K. and harmonization of 5G mobile services globally. "This does not guarantee that these bands will be adopted in the future and we do not rule out consideration of other options" ahead of November's WRC-15 in Geneva, the watchdog said.

(April 24, 2015) totaltele.com

United States

The Federal Communications Commission (FCC) on Friday voted to proceed with offering commercial telecoms operators free access to additional wireless frequencies in the 3.5GHz-3.7GHz band by adopting rules for the 'Citizens Broadband Radio Service' enabling sharing spectrum currently used by military radars and other government organizations. Specifically, the decision adds another 100MHz of spectrum in the 3550MHz-3700MHz band to the 50MHz in that range already available for commercial use. Reuters reports that the spectrum is suitable for high data throughput over relatively short distances and may be used to boost the capacity of existing cellular networks, especially in densely populated locations or indoors, while the frequencies could also be utilized for machine-to-machine (M2M) wireless device connectivity. Following the decision, the Citizens Broadband Radio Service system will now be set up to allow commercial operators to access additional frequencies without interfering with incumbent users. The plan, in development since 2012, envisages wireless providers and others using the new 3.5GHz frequencies without charge ('the General Authorized Access tier'), similarly to Wi-Fi or other unlicensed frequency usage, or by buying short-term exclusive licenses in certain geographical high-demand areas ('the Priority Access tier'). Interest in the scheme has come from various wireless network operators, vendors, internet players and device companies, including Verizon, Google, Qualcomm and Ericsson. Scott Belcher, chief executive of the Telecommunications Industry Association, said in a statement reacting to the latest decision: 'The spectrum crunch remains very real and the FCC's action represents significant progress towards opening more spectrum for broadband.' (April 20, 2015) telegeography.com

U.S. regulators voted to open a swath of government-controlled airwaves for commercial use by tech and telecom companies such as Verizon Communications Inc and Google Inc as they seek to meet growing data demands from new wireless devices. The Federal Communications Commission voted unanimously to chalk out a process to allow companies free access to the frequencies in the 3.5 gigahertz band. Those airwaves' ability to carry heavy data across short distances makes them particularly attractive to companies. The plan to open up the frequencies can, for instance, help boost the capacity of companies' existing wireless networks, especially in densely populated locations or indoors. It could even help wirelessly connect specific devices like thermostats or washing machines to facilitate the "Internet of things." Friday's vote will kick-start the process of setting up a system for companies to begin using frequencies now dedicated to military radars and other government operations, by sharing them in places where commercial users would not interfere with incumbent users. The opening up of 3.5 GHz airwaves "is setting a new paradigm for how spectrum sharing should work," Chairman Tom Wheeler said in remarks in Washington. "The spectrum crunch remains very real and the FCC's action represents significant progress toward opening more spectrum for broadband," the TIA's chief executive Scott Belcher said in a statement. On Friday, the FCC also said it had voted to propose a notice seeking public comment on competitive bidding practices and rules in auctions of airwaves. U.S. regulators have been working on plans to reform government airwaves auction rules to prevent big companies from tapping a discount program intended for small businesses. The FCC is gearing up to hold an auction early next year of another set of airwaves belonging to broadcasters and repackaging them to sell them to the wireless industry. (April 17, 2015) reuters.com

The Federal Communications Commission's (FCC's) net neutrality rules are due to come into force on 12 June after appearing on the Federal Register on Monday, prompting telco lobby group USTelecom to refile a lawsuit challenging the regulations. New net neutrality rules were adopted by the FCC in late February and formally issued on 12 March. As per U.S. government procedure, they take effect 60 days after publication on the Federal Register, during which time groups that oppose them can file a legal challenge. USTelecom, which counts major telcos and ISPs among its membership, is one such group. While it supports the aims of the net neutrality rules – which prevent fixed and mobile broadband providers from blocking access to legal content, applications and services – it disputes the method, namely Title II of the Communications Act, which reclassifies broadband as a utility service rather than an information service. This subjects operators to stricter rules controlling how they treat traffic on their networks, and blocks them from striking commercial agreements with online players to prioritize their services. USTelecom actually filed its lawsuit with the U.S. Court of Appeals for the District of Columbia on 23 March, inadvertently jumping the gun in a bid to avoid missing a potential deadline for filing for review. Monday's filing supplements the initial filing. It calls for the court to scrap the net neutrality rules on the grounds that they are "arbitrary, capricious, and an abuse of discretion." (April 13, 2015) totaltele.com

Zimbabwe

The Posts and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) says the country was home to 5.3 million users of mobile money services at the end of 2014. The total value of transactions carried out during the year reached US$1.4 billion, up 81% on the 2013 figure, with US$445.7 million worth of transactions conducted in the final three months of the year. All three cellular operators in Zimbabwe – Econet Wireless, NetOne and Telecel – provide mobile money services. The country was home to around 14.2 million mobile subscribers at the end of 2014. (April 16, 2015) telegeography.com

Telecel Zimbabwe Ltd., a unit of wireless provider VimpelCom Ltd., responded to the country's regulator after the government warned it may close its operations, according to the telecommunications regulator. Telecel wrote to the Postal and Telecommunications Regulatory Authority of Zimbabwe about its failure to pay a license fee, as well as compliance with black empowerment laws, Baxton Sirewu, the regulator's acting director-general, told reporters on Tuesday. "We've been engaging quite closely with Telecel Ltd. and exchanging information," he said at the Innovation Africa Digital Summit in Victoria Falls, Zimbabwe. Telecel, which competes with Econet Wireless Zimbabwe Ltd. and state-owned NetOne in Zimbabwe, brought in executives from other countries after the government warned that it would be shut down if it didn't address license breaches, Zimbabwe's Daily News reported last month. The company has more than 2 million customers and is operated by Global Telecom, a Cairo-based unit of VimpelCom Ltd. (April 15, 2015) bloomberg.com

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WHOLESALE NEWS

WHOLESALE UPDATES

Bahrain's TRA probes complaints over $79k roaming bills

Bahrain's telecoms regulator has said it is investigating complaints regarding international mobile roaming bills which have left consumers with bills totally around BD30,000 ($79,000). The Telecommunications Regulatory Authority (TRA) said it was investigating a total of 12 complaints, one of which has a value of BD12,800. The TRA said it is now considering additional regulatory measures to ensure that consumers are notified when they're about to reach their limits to prevent them from incurring additional charges. TRA's director of consumer affairs, said: "During the first quarter of this year, not only did we notice an increase in the number of consumer complaints related to roaming cases, but also an increase in the amounts being billed to consumers as a result of using mobile roaming." Late last year, the TRA urged the three mobile telecommunications service providers to take voluntary actions regarding the roaming bill shocks such as establishing a maximum threshold to trigger warnings, he said in a statement. He added that the telcos were told to adopt risk management measures such as suspending the mobile services when an agreed limit is reached. "It is completely unacceptable and unfair that consumers do not receive the adequate level of transparency regarding the cost and volume of their usage of mobile roaming services," Director said. "We are putting all of our efforts to resolve those cases in hand and studying the implementation of additional regulatory measures to ensure that consumers are notified when they're about to reach their limits to prevent them from incurring additional charges." The TRA also warned customers that data roaming charges are very expensive, and they should make sure that the data roaming function is switched off on their mobile phones.

T-Mobile seeks roaming concessions in AT&T's purchase of Plateau Wireless

T-Mobile US is asking the FCC to require AT&T Mobility to honor T-Mobile's existing roaming agreement with Plateau Wireless in the Southwestern United States. AT&T is in the process of acquiring Plateau Wireless, and T-Mobile has warned that AT&T will increase T-Mobile's roaming costs in the area unless the FCC steps in. T-Mobile said it has enjoyed a longstanding roaming agreement with Plateau Wireless, which offers wireless service across eastern New Mexico and West Texas. T-Mobile told the FCC that, if AT&T successfully purchases Plateau, "the Plateau system would be integrated into

AT&T's network, subjecting T-Mobile to AT&T's less favorable roaming practices in the Plateau service area."

T-Mobile continued: "AT&T continues to use its market position to only offer roaming arrangements that raise T-Mobile's costs and degrade its customers' experience, harming competition. In this transaction, it will mean T-Mobile will lose its ability to have its customers roam in only the limited geographic area covered by its roaming agreement with Plateau, resulting in either significant or unnecessary home roaming by T-Mobile or the complete denial of T-Mobile's ability to roam in the areas covered by the Plateau agreement. As a result, T-Mobile's customers may lose coverage or full system capabilities in the parts of the Plateau coverage area where they could formerly roam."

For its part, AT&T is urging the FCC to approve its purchase of Plateau. AT&T in June 2014 said it would purchase 40,000 customers, a handful of spectrum licenses and "related operations and assets" of Plateau Wireless. As a result of the transaction, Plateau said it would exit the wireless business. AT&T had hoped to close the transaction in the second half of last year. The disagreement between T-Mobile and AT&T on Plateau is part of a wider battle between the two carriers over roaming. Last year, T-Mobile asked the FCC to provide guidance on what exactly constitutes a "commercially reasonable" data roaming agreement, an effort to get the agency to clarify its initial roaming order from 2011. AT&T and Verizon Wireless stood against T-Mobile on the issue, arguing the FCC should not get involved in the details of roaming agreements.

Late last year, the FCC disagreed with Verizon and AT&T's arguments and decided to grant T-Mobile's petition. In its ruling, the FCC essentially will provide guidance to carriers about how the FCC will evaluate potential complaints about data roaming agreements in the future. Thus, T-Mobile appears to be hoping to use its momentum on the issue to retain its more favorable roaming agreement with Plateau as AT&T works to acquire the carrier. "T-Mobile's request would prevent a non-speculative, transaction-specific harm and preserve the status quo, consistent with past Commission practice," T-Mobile told the FCC. "T-Mobile's requested condition would impose no meaningful burden

on AT&T and would provide significant benefit to T-Mobile and its customers."

Telkom announces wholesale price reductions of between 10% and 63%

The new DOCSIS 3.1 is a broadband technology that enables data rates of several Gbit/s for IP-based transmission in cable networks, including transmitting Ultra-HD content and capacity requirements for IP-based services. Rohde & Schwarz is now offering test solutions for developing and manufacturing DOCSIS 3.1 based consumer electronics equipment and components. The new DOCSIS 3.1 is

a broadband technology that enables data rates of several Gbit/s for IP-based transmission in cable networks, including transmitting Ultra-HD content and capacity requirements for IP-based services. Rohde & Schwarz is now offering test solutions for developing and manufacturing DOCSIS 3.1 based consumer electronics equipment and components. The wholesale business of telecoms network Telkom has announced price reductions of between 10% and 63% for its product range. Representatives of Telkom Wholesale Services said that as of May 1, these price decreases all form part of ranges that could also impact ADSL and fiber broadband customers, depending on who their internet service providers are.

Service providers are set to experience these price reductions which can then be passed on to the consumer. These rate reductions are expected to be up to 10% on Telkom's wholesale fibre broadband access, 6%-25% across the South African Internet eXchange product range and 1.4%-63% across the IP Connect range, with tariff reductions of between 35% and 40%

across the Metro Ethernet product range. "What we're hoping that what will come out of this exercise is the ability to pass this onto the service providers," said Telkom's managing director of Wholesale Services Prenesh Padayachee. It's unclear what the exact price reductions could be for consumers specifically. However, Telkom says it plans for these reductions to help boost internet access in the country.

South Africa has also recently fallen five places on the World Economic Forum's global information and communication technology rankings to position 75. Factors such as South Africa's limited international internet bandwidth dragged down the country's ranking. A key factor that could negatively impact the level of Telkom's price decreases is the rise in line rental prices. Line rental is the fee Telkom charges its customers to have an active phone line connected to their homes. Telkom plans to hike its line rental prices by 13%, from R166 per month to R189 per month on May 1. Line rental prices are the domain of Telkom's retail business, but Alphonzo Samuels, Telkom's chief technology officer, told journalists that the company is studying these line rental prices as well.

TRA Investigates Consumer Complaints on International Roaming Bill Shocks

The Telecommunications Regulatory Authority (TRA) began an investigation of 12 complaints regarding mobile international roaming bills which have shocked consumers with a total value of around 30,000 Bahraini Dinars.

TRA 's Director of Consumer Affairs Sh. Abdulla bin Humood Al Khalifa said "During the first quarter of this year , not only did we notice an increase in the number of consumer complaints related to roaming cases, but also an increase in the amounts being billed to consumers as a result of using mobile roaming. One of the cases that is being currently investigated has a value of BD 12,800."

Sh. Abdulla continued in stating that "During separate meetings late last year, TRA urged the three mobile telecommunications service providers to take voluntary actions regarding the roaming bill shocks such as establishing a maximum threshold to trigger warnings, and to adopt

risk management measures such as suspending the mobile services when an agreed limit is reached." He further adds, "It is completely unacceptable and unfair that consumers do not receive the adequate level of transparency regarding the cost and volume of their usage of mobile roaming services. We are putting all of our efforts to resolve those cases in hand and studying the implementation of additional regulatory measures to ensure that consumers are notified when they're about to reach their limits to prevent them from incurring additional charges." It is important to remind consumers of some important steps to avoid potential bill shocks and enable them to make wise decisions when using mobile roaming services and minimize roaming charges.

TRA probes 'unfair' data roaming fees

Bahrain's telecom watchdog has launched an investigation into 'unfair' data roaming charges levied by mobile phone operators, after some customers racked up bills totaling thousands of dinars while overseas. The Telecommunication Regulatory Authority (TRA) said it was reviewing national policy following a surge in complaints from the public during the first quarter of this year. It revealed 12 customers alone ran up BD30,000 in roaming charges between them, with one user facing a bill for almost BD13,000, and called for operators to be more transparent about fees. 'During the first quarter of this year not only did we notice an increase in the number of consumer complaints related to roaming cases, but also an increase in the amounts being billed to consumers as a result of using mobile roaming,' TRA consumer affairs director Shaikh Abdulla bin Humood Al Khalifa said in a statement yesterday. 'One of the cases that is being currently investigated has a value of BD12,800.' The TRA last year urged Bahrain's telecom companies to impose a maximum data roaming threshold for customers who were travelling abroad to prevent them unwittingly accumulating massive phone bills. It suggested issuing warnings to customers who exceeded a certain amount, as well as measures such as suspending services for those who reached a certain limit. 'It is completely unacceptable and unfair that consumer does not receive the adequate level of transparency regarding the cost and volume of their

usage of mobile roaming services,' said Shaikh Abdulla. 'We are putting all of our efforts to resolve those cases in hand and studying the implementation of additional regulatory measures to ensure that consumers are notified when they're about to reach their limits to prevent them from incurring additional charges.'

Data roaming charges are applied to anyone who uses a mobile phone or tablet while abroad to browse the Internet, download video or use applications such as Facebook, Snapchat, Instagram, WhatsApp or e-mail. Charges are measured per megabyte and differ from company to company, both locally and internationally. A person using data roaming in the UK could be charged between 800 fils and BD7 per megabyte, depending on which UK provider they connect to. In Italy, charges range from BD3 to BD5 per megabyte, while in France it costs between BD5 and BD7 per megabyte. However, in Thailand it could cost from BD2.5 to more than BD10 per megabyte. This means someone who downloads a five minute, high-quality video (around 50 megabytes) in Thailand could be charged as much as BD500 in roaming fees. The same five-minute video could cost between BD40 and BD350 in the UK. The TRA has come up with the following recommendations to avoid racking up massive data roaming charges by customers while overseas. Turn off data roaming and check roaming rates of the country you are visiting before using data. Regular travelers should choose the service provider that charges the least, or purchase a prepaid plan in the country of travel. When roaming, customers should manually select the network they want to use, as the 'automatic network selection' might connect them to a more expensive network.

LG Uplus, KDDI launch VoLTE roaming

LG Uplus has launched a commercial VoLTE roaming service in Japan through a partnership with KDDI. "While many operators worldwide have trialed VoLTE roaming services, this is the world's first successful commercial

launch," the South Korean mobile operator said in a release distributed via the GSMA.

The telco highlighted the fact that its customers can now make HD voice and video calls while roaming on KDDI's network in Japan, rather than having to rely on 3G networks for voice. The service is available to customers with an LG G-Flex 2 smartphone.

LG Uplus said it will extend the service to include new countries and new devices, but did not provide any further information on its plans. "This launch is the result of the efforts to allow our roaming subscribers abroad the same enhanced domestic experience," a spokesperson for the company said, in the release. "I expect other worldwide mobile operators will follow in this Endeavour to commercialize VoLTE roaming services in the near future," the spokesperson added.
totaltele.com

Europe proposes one week of free roaming – 5 minutes per call

In the proposal of Latvia, European citizens should be allowed to make at least 5 minute free phone calls for at least 7 days a year when staying

in other European countries. In the same period, and also without being charged, they should be allowed to send a minimum of 5 text messages and use a minimum of 10MB of data. Telecom providers would need to properly inform their customers about the rates, the number of days and the volume that can be used at no cost during their stay abroad. Consumers should also get insight in their usage

and should be able to set a limit to avoid undesired high phone bills. The provider should send a notification when the user comes close to that limit.

The proposal is contained in a by Statewatch published amendment of Latvia, currently President of the European Union. The amendment must close the gap between Member States and the European Parliament on the abolition of roaming charges. The European Parliament and European Commission want to get rid of roaming charges entirely on short term, but the European Member States are against that proposal.

In March this year, the Member States proposed to allow roaming up to 5MB per day, to be deducted from users' own bundle, until 2018. The European Commission called the 5MB per day proposal a joke. The European Commission, the European Parliament and the European Council have to negotiate on the amendment.

National Roaming Costs to Fall by Nearly a Quarter

The cost of roaming within India for locals is set to fall by nearly a quarter from the May 1 after the telecoms regulator slashed the maximum rates that the mobile networks can charge. Currently, the country is divided up into regions, known as circles, and moving between the regions usually imposes roaming costs on the consumer, especially if their home supplier doesn't have a network in the visited circle. The regulator, the TRAI has cut the ceiling rate for voice calls by 23 percent, and cut the maximum rate for text messages by 75 percent. The new rates come into effect on the 1st May 2015. For incoming calls on roaming, a ceiling of 45 paise per minute has been fixed from the earlier 75 paise. For a local text, it is 25 paise compared to Rs 1 before; and for STD texts, 38 paise from Rs 1.50 earlier The regulator last reviewed roaming rates in June 2013.

Mobile roaming charges will come down from May 1

Telecom regulator TRAI has reduced ceiling tariffs for national roaming calls and SMS with effect from May 1, 2015, which will bring down the

roaming tariffs for consumers. While on roaming, for outgoing local calls, a ceiling of 80 paise/ minute has been fixed from Re 1 a minute earlier and Rs 1.15 per minute from Rs 1.5 a minute

for STD calls.

For incoming calls on roaming, a ceiling of 45 paise per minute has been fixed from earlier 75 paise charged earlier and 25 paise or a local SMS compared to Rs 1 before and 38 paise for STD SMS from Rs 1.50 earlier, TRAI said. It has also mandated telecom service providers (TSPs) to offer a special roaming tariff plan. Tariffs for national roaming services were last revised in 2013. It had earlier said the new tariff regime shall be subject to review after a year. A draft telecommunication tariff (60 the Amendment) order, 2015 was issued on February 2 this year for comments of the stakeholders. After examining the comments of the stakeholders, TRAI has revised the ceiling tariffs for voice calls and SMS while on national roaming.

Google will reportedly offer free international mobile roaming

Google, which is developing its own wireless service, will reportedly offer its future phone customers international roaming at no additional cost to their plans, according to The Telegraph.

Citing "industry sources," The Telegraph reports that Google is in talks to partner with Hutchison Whampoa, the owner of British wireless carrier Three, to provide Americans with free roaming wherever there is a Three network, which includes the

UK, Ireland, Italy, Sweden, Australia, and a number of other countries. It's unclear if Google would strike similar deals with other companies to offer truly global coverage. Three declined to comment on the report. Google did not respond to Quartz's request for comment.

Google's reported plan could potentially solve one of the biggest headaches of traveling abroad. Under most standard wireless plans, when you travel outside the range of your home network, your phone picks up a foreign network, at the extreme detriment of your wallet (unless you have airplane mode enabled).

And in many cases, wireless plans are not all that clear about what services they provide and where. Travelers, especially those who don't often venture outside their home country, can return home to find inordinate charges on their cellular bill because their phones picked up a new network while abroad. It's an avoidable problem, to be sure, but one that could be revamped to make the user experience more intuitive, seamless, and affordable. Most mobile carriers in the US offer packages that include international roaming, but they're usually quite expensive.

No doubt Google's mobile service will be—at least initially—a small project. Sundar Pinchai, head of Android at Google, said in March that Google doesn't intend to be a "carrier at scale." Instead, Google will be a mobile virtual network operator, or MVNO, meaning it will buy wholesale access to an existing carrier's network (like Sprint or T-Mobile) and sell it back to customers.

The Wall Street Journal reports that the upcoming wireless plan, at least at first, will only work with Google's Nexus phone (paywall). But the company could be well-positioned to expand its wireless plans to a larger scale if it wanted to, since it's already in the business of connecting people around the world. Project Loon is bringing wireless internet to remote areas via giant balloons, and Google Fiber is taking its internet and cable TV offerings to more and more cities in the US.

OFCOM to consider impact of mobiles and VOIP on landline providers' market dominance as part of next review

The growing use of mobile phones, Voice over Internet Protocol (VOIP) and text-based and social media services to initiate calls may mean that the UK's dominant landline telephone providers no longer require the strictest form of regulation, Ofcom has suggested.

The UK's telecoms regulator is currently consulting the industry before it publishes proposals for change to the regulation of wholesale fixed call 'origination and termination' later this year and early next year. According to its 'call for inputs', which closes on 14 May, the regulator intends to consider whether these services now provide "competitive constraints" on BT and KCOM, the provider with 'significant market power' (SMP) in the Hull area.

As part of its program of work for 2016/19, Ofcom intends to consider whether 'ex ante regulation' of wholesalers of fixed voice call origination services remains necessary; and, if so, whether current rules in place to ensure sufficient competition remain effective and proportionate. Depending on the evidence it receives during its review, it could impose additional obligations on BT and KCOM or loosen the regulatory requirements.

Wholesale fixed voice call origination is currently subject to 'ex ante regulation', which is the strongest possible form of market intervention by the regulator. EU law requires ex ante regulation in cases where there are substantial barriers to market entry; no visible trend towards competition developing; and the effect of competition law alone is unable to guarantee a competitive market.

According to Ofcom's call for inputs, 35% of UK consumers now use VoIP services such as Skype and Vonage, up from 22% in 2012. Mobile calls accounted for 59% of outgoing call minutes in 2013, a percentage which has increased every year since 2010 when mobile phone use overtook fixed line calls for the first time. However, the number of fixed lines installed in the UK has also increased, according to the report.

"We intend to examine these trends in more detail and the underlying reasons for these trends to understand what they indicate about competition in the wholesale call origination market," said Ofcom in its paper. "We also intend to consider the implications for residential and business end-users (and whether there are any differences between the two groups)."

Ofcom also intends to review the wholesale fixed call termination market to understand whether companies can compete effectively. However, it expects that this market will remain within the scope of ex ante regulation, as this is an EU-level presumption.

Vodafone Hungary abolishes roaming charges

Customers using the Red package will receive the same services at the same price whether they are in Hungary or abroad. Diego Massidda from Vodafone Hungary says the decision makes sense for the Hungarian market: "This is something we have developed in Hungary specifically for the Hungarian market which makes sense for the Hungarians, because of course we are surrounded by a number of different countries with very strong Hungarian communities living there and therefore this would be a very attractive offer also for those Hungarians who spend a lot of time there or have relatives and family there." Vodafone Hungary is one of the first telecommunication companies in Europe to abolish roaming and the impact will be closely watched by competitors and the wider Vodafone family. Our correspondent in Budapest is Andrea Hajagos: "After this announcement the question is whether other companies will abolish roaming charges before the current date for the end of all roaming charges in 2018.

TRAI Tariff Order restricts DTH operators from charging more than Rs.450 for installation and activation

The Telecom Regulatory Authority of India (TRAI) has today issued tariff order for commercial interoperability of Customer Premises Equipment (CPE) offered by the Direct-to-Home (DTH) operators to their subscribers. The tariff order states that the transparent and upfront declaration of installation and activation charges by DTH operates which shall not exceed Rs.450. There also has to be a transparent price declaration of all types of CPEs by the DTH operators to enable the subscriber to make an informed choice says the order. It further directs DTH operators to offer a purchase scheme called Standard Scheme for all types of CPEs on a standalone basis. The DTH operators can offer additional schemes such as bundling schemes and rentals schemes. In the rental schemes DTH operators can charge a specified one-time interest free refundable security deposit, installation and activation charges from the subscriber during enrolment followed by specified monthly rental charges. No repair or maintenance charges are permissible for such subscribers according to the tariff order. It further mentions that DTH operators shall cater for free maintenance and repairs of CPEs for three years after installation or activation. In case of outright purchase and hire purchase schemes, DTH operators may levy visitation charges not exceeding Rs 250 per visit after the warranty period has elapsed. Subscribers shall also have an option of buy-back or refund for CPEs in all the offered schemes including bundled schemes with an exception of rental schemes. In rental scheme, subscriber will get back the security deposit. DTH operators may prescribe a lock-in period not exceeding six months for a subscriber to remain committed. Subscribers can surrender the CPE at any time subject to levy of certain charges that have been prescribed. They will also have to set up collection centres at every district headquarters to enable easy return of CPEs. Subscribers shall be provided with a toll-free no. for registration of request for the surrender of connection. Subscribers shall have option of returning the CPE by paying a nominal collection charge of Rs.300 to the DTH operator or to return the CPE at the designated collection centre. The tariff order also states that no other charges by any other name other than those specified by it in the order can be levied on the subscribers by DTH operators. DTH operators shall declare all current schemes on their websites while also publishing all charges for each scheme. Subscribers will have to be given details of the scheme opted by him. Finally it states that the DTH operators will be given a time of 60 days to align their business processes for compliance with the provisions of tariff order.

3 reasons telcos should care about environmental sustainability

George Galica
Head of Managed Services
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In March 2015, the region and world celebrated Earth Hour, whereby millions of people from 173 countries switched off the lights in solidarity - demanding global action on climate change and respect for the natural environment through empowering individuals to take the necessary steps to see the change.

Qatar's own General Electricity and Water Corporation (KAHRAMAA) headquarters, Ministry of Municipality and Urban Planning and Tourism Authority joined the likes of the Empire State Building and Eiffel Tower – darkening some of the world's most luminous cities and making a statement about the sustainability of Earth's natural resources that is being jeopardized due to human overconsumption. Dubai's Electricity and Water Authority (Dewa) estimated that it has saved 775 tonnes of carbon dioxide emissions just by acknowledging Earth Hour over the last seven years.

Currently in Qatar, individuals consume about 43 kilowatt-hours of electricity per day. To put things in perspective, that has about the same impact on the environment as burning 14 kilograms of coal each day. Much to Qatar's credit, a serious national effort to reduce that figure by about 10% by 2018 is well underway.

With every challenge comes an opportunity. Here's why telecommunications providers in particular should be taking environmental sustainability seriously for more than just an hour each year:

[Industry] knowledge is power. Few industries are as well-placed to make a difference as we are. Vodafone Qatar recently hosted a ground-breaking sustainability Majlis in partnership with Ernst & Young. One key takeaway from the debate was that governments are largely doing their bit by initiating programmes - like Tarsheed and Estedama in Qatar - to promulgate a culture of a deep awareness of the environmental impact of everyday life tasks . However, delegates agreed, it is for businesses to contribute to a sustainable national economy, ensuring sustainability is deeply ingrained in a company's business strategy instead of

being purely cosmetic. [[However, delegates agreed, it is for businesses to contribute to all dimensions of the country's sustainability- economic, social, and environmental- through ensuring that all these dimensions are ingrained in the company's business strategy instead of being purely cosmetic. This will create a ripple effect on a national level in terms of the environmental footprint management of corporates in Qatar, as companies will start addressing their direct and indirect environmental impact more proactively, which includes to giving consumers more environmentally friendly product and service options.In the case of telecommunications companies, I truly believe that telecommunications providers in this region and around the world are a force for good and can allow an energy supplier, for instance, to install smart meters on cell sites to monitor consumption, change consumption behaviour in a manner that still satisfies consumers, yet reduces carbon emissions by a measurable percentage. Vodafone probably has more Smart meters installed in homes around the world than any other network. Leveraging decades of experience and know-how not available anywhere else, telecommunications providers have the opportunity and arguably the responsibility to be a partner in this effort, working hand-in-hand with regulators and decision makers to create a cleaner future.

Smart cities are smart business. From established financial powerhouses like London and Tokyo, to emerging centres like Doha and Rio de Janeiro, the most dynamic cities are all busy plotting their transition to a new era of technological and sustainable governance. They are under mounting pressure to do so. With respect to sustainability, Smart Cities promise to be more responsive to their citizens' energy needs and more conscious of theirs health. It goes without saying that this is great news for residents, businesses, and the environment. It is also a lucrative commercial opportunity, with the smart city market expected to almost double from $655.57bn in 2014 to $1,266.58bn by 2019. In the Gulf, IDC estimated that total spending on M2M connections and smart technologies would reach roughly $224 million in 2014 – a nearly 20% increase from the previous year.

Our customers care: Whether it's improving air quality or controlling the temperature in your home to keep energy bills down, it doesn't get more personal than reducing your everyday environmental footprint and even though not everyone is an activist – people care. We think it is absolutely essential to involve people, especially young people, in the creation of their sustainable society. At Vodafone Qatar, we vowed to do this from the outset, which is why we launched Design My Qatar – a social initiative designed to engage the citizens of Qatar and encourage them to share their views on what they want their future to look like. We noticed that much of the conversation has been about technology solutions to problems, but no one had ever asked consumers if it would be helpful for them to know, for example, that they consume 34 kilowatts of energy. We created an innovative online portal in the form of a simulated city which rewards contributions and rates them – creating a community and crowdsourcing ideas. The response was overwhelming and the presence of sustainable solutions hard to ignore.

George Galica is the Head of Managed Services at Vodafone Qatar. Vodafone has a 20 year pedigree connecting devices and people, and is now brining these unrivalled global capabilities to this region

TECHNOLOGY NEWS

TECHNOLOGY UPDATES

ITU, ETSI Agree Method to Assess Energy Efficiency of Mobile Networks

The International Telecommunication Union (ITU) and the European Telecommunications Standards Institute (ETSI) have agreed on a new standard to measure the energy efficiency of mobile radio access networks (RANs), the wireless networks that connect end-user equipment to the core network. The standard is the first to define energy-efficiency metrics and measurement methods for live RANs, providing a common reference to evaluate their performance. Its application will build uniformity in the methodologies employed by such evaluations, in parallel establishing a common basis for the interpretation of the results. "Improving the energy efficiency of ICT has become central to all fields of technical standardization at ITU," ITU Secretary-General Houlin Zhao has said. "The world is moving towards hosting billions of connected devices, things and objects, making energy efficiency essential to the functionality and environmental sustainability of ICT networks," he has added.

Zain, Ericsson to improve indoor coverage via Radio Dot System

Mobile operator Zain Bahrain has partnered with Swedish vendor Ericsson to deploy the latter's Radio Dot System, in a move designed to improve indoor wireless network performance. According to the Saudi Gazette, this is one of the first implementations of the technology in the region and will see the Radio Dot System fully integrated with Zain's network. The cellular radio, or 'Dot', weighs less than 300 pounds and uses an antenna element to increase coverage in medium to large indoor locations, with Ericsson claiming the technology 'enables mobile operators to deliver consistently high performance voice and data coverage and capacity in the broadest range of enterprise buildings and public venues.'

Hamad Al Rumaihi, technology director at Zain Bahrain, commented: 'Ericsson's Radio Dot System will enable us to offer our customers a better user experience. We are consistently placing the needs of our customers first, and this system will ensure that they enjoy the best indoor mobile connectivity.'

Google Inc Testing New Algorithm to Improve Mobile Search Results

Google Inc has been working hard to increase the total number of its mobile search users, given the growth in smartphone usage. For this specific reason the search engine giant is testing a new algorithm that will rank all the websites based on their mobile-friendliness. This means that Google will enhance its search

engine, by listing the most accurate and relevant results. These changes will take place starting from April 21. Google is looking to update its algorithm, which will initially affect the mobile searches, and have a significant impact on search results. Search results will be filtered on the basis on relevancy, and will be fully optimized for the mobile users. Google can retain its market share by vending off its competitors like Yahoo and Bing, by expanding its market for mobile users. The search engine giant wants to capitalize on the recent shift in the market away from the desktop. According to a report by Search Engine Watch, Internet search usage on smartphones has finally surpassed desktop usage in 2014. Furthermore, they also mentioned that over 77% of business executives use internet on their smartphones, instead of desktops or laptops. Meanwhile, overall mobile traffic for most prominent websites range from 10%-35% in the first three month of the year. This means that websites which are not yet optimized for the mobile, could stand to losing approximately one third of their traffic starting from April 21. Companies can gain considerable advantage over competitors by optimizing their websites for mobile devices. Due to the latest change in the algorithm, companies can now finally capitalize on increasing mobile traffic, and should be very responsive while adapting to changes provided by Google. The search engine has made an announcement that it will continue to provide updates for mobile devices, which can increase engagement by optimizing search results. Moreover, Google is facing pressure from EU regulators, who have accused the search engine of favoring its own online shopping stores by distorting search results. In the latest comScore for March, Google is losing its market share to Bing, as it has grabbed more than 20% in the US market. However, Google kept its lead with a market share of 64.4%, while Microsoft shares grew to 20.1%, reflecting an increase of 0.3%. Yahoo made a little ground holding onto its 12.7%. Google stock closed at $543.52 yesterday, and has risen approximately 1.6% this year.

Thumbnail Track Pad

Researchers at the MIT Media Lab are developing a new wearable device that turns the user's thumbnail into a miniature wireless track pad. They envision that the technology could let users control wireless devices when their hands are full -- answering the phone while cooking, for instance. It could also augment other interfaces, allowing someone texting on a cellphone, say, to toggle between symbol sets without interrupting his or her typing. Finally, it could enable subtle communication in circumstances that require it, such as sending a quick text to a child while attending an important meeting.

The researchers describe a prototype of the device in a paper they're presenting at the Association for Computing Machinery's Computer-Human Interaction conference in Seoul, South Korea. According to Cindy Hsin-Liu Kao, an MIT graduate student in media arts and sciences and lead author on the new paper, the device was inspired by the colorful stickers that some women apply to their nails. "It's a cosmetic product, popular in Asian countries," says Kao, who is Taiwanese. "When I came here, I was looking for them, but I couldn't find them, so I'd have my family mail them to me."

Indeed, the researchers envision that a commercial version of their device would have a detachable membrane on its surface, so that users could coordinate surface patterns with their outfits. To that end, they used capacitive sensing -- the same kind of sensing the iPhone's touch screen relies on -- to register touch, since it can tolerate a thin, nonactive layer between the user's finger and the underlying sensors.

As the site for a wearable input device, however, the thumbnail has other advantages: It's a hard surface with no nerve endings, so a device affixed to it wouldn't impair movement or cause discomfort. And it's easily accessed by the other fingers -- even when the user is holding something in his or her hand. "It's very unobtrusive," Kao explains. "When I put this on, it becomes part of my body. I have the power to take it off, so it still gives you control over it. But it allows this very close connection to your body."

To build their prototype, the researchers needed to find a way to pack capacitive sensors, a battery, and three separate chips -- a microcontroller, a Bluetooth radio chip, and a capacitive-sensing chip -- into a space no larger than a thumbnail. "The hardest part was probably the antenna design," says Artem Dementyev, a graduate student in media arts and sciences and the paper's other lead author. "You have to put the antenna far enough away from the chips so that it doesn't interfere with them."

Kao and Dementyev are joined on the paper by their advisors, principal research scientist Chris Schmandt and Joe Paradiso, an associate professor of media arts and sciences. Dementyev and Paradiso concentrated on the circuit design, while Kao and Schmandt concentrated on the software that interprets the signal from the capacitive sensors, filters out the noise, and translates it into movements on screen.

For their initial prototype, the researchers built their sensors by printing copper electrodes on sheets of flexible polyester. That allowed them to experiment with a range of different electrode layouts, but in ongoing experiments, they're using off-the-shelf sheets of electrodes like those found in some track pads. They've also been in discussion with battery manufacturers -- traveling to China to meet with several of them -- and have identified a technology that they think could yield a battery that fits in the space of a thumbnail but is only half a millimeter thick. A special-purpose chip that combines the functions of the microcontroller, radio, and capacitive sensor would further save space.

At such small scales, however, energy efficiency is at a premium, so the device would have to be deactivated when not actually in use. In the new paper, the researchers also report the results of a usability study that compared different techniques for turning it off and on. They found that requiring surface contact with the operator's finger for just two or three seconds was enough to guard against inadvertent activation and deactivation.

ZTE claims 5G research breakthrough

Chinese equipment vendor ZTE Corporation has revealed a new Multi-User Shared Access (MUSA) technology, which it claims is capable of more than tripling the overload capacity of wireless access networks. Based on simulation results, ZTE's MUSA algorithm delivered an improvement of over 200% in the overload radio, thus 'helping to transition networks for the era of the Internet of Things (IoT)'. MUSA is one of ZTE's 'Pre5G' research projects, which use 5G-ready technologies to provide commercial Long Term Evolution (LTE) end-users with next generation access experience. Further, ZTE successfully tested its Pre5G Ultra-Dense Network (UDN) solution, which utilizes Pico Remote Radio Unit (RRU)

hardware platform and Cloud Radio interference cancellation technology, allowing for denser deployment of base stations in order for operators to gain higher capacity density. ZTE expects that its Pre5G technologies – MUSA, Massive multiple input, multiple output (MIMO) and UDN – will be commercially deployed in 2015.

Xiang Jiying, chief scientist at ZTE, said: 'The validation of MUSA and UDN technologies further enhances the Pre5G solutions ... It will help operators exponentially enhance the access rate and overall network capacity by leveraging existing resources in the next three-to-five years. Before standardization of 5G technologies, this solution can effectively mitigate the challenges of data traffic surge, and help operators seize market opportunities and achieve better business development.'

As previously reported by CommsUpdate, in January 2015 ZTE completed a 'world first' pre-commercial field test of multi-user and multi-stream transmission on a Massive MIMO base station, which demonstrated peak data throughput more than three times that of traditional base stations and average data throughput that exceeded conventional systems by at least five times.

ITU and ETSI Agree Method to Assess Energy Efficiency of Mobile Networks

ITU and the European Telecommunications Standards Institute (ETSI) have agreed a new standard to measure the energy efficiency of mobile radio access networks (RANs), the wireless networks that connect end user equipment to the core network. The standard is the first to define energy-efficiency metrics and measurement methods for live RANs, providing a common reference to evaluate their performance. Its application will build uniformity in the methodologies employed by such evaluations, in parallel establishing a common basis for the interpretation of the results. "Improving the energy efficiency of ICT has become central to all fields of technical standardization at ITU," said ITU Secretary-General Houlin Zhao. "We are moving towards a world that will host billions of connected devices,

things and objects, making energy efficiency essential to the functionality and environmental sustainability of ICT networks." Luis Jorge Romero, ETSI Director General: "ETSI has a track record of developing market-driven standards and specifications to deliver improved energy efficiency in telecommunications networks and equipment. We are particularly pleased by the result of this cooperation which has produced ITU-T L.1330 and the technically equivalent ETSI ES 203 228." The new standard, Recommendation ITU-T L.1330 "Energy efficiency measurement and metrics for telecommunication network", was developed by ITU-T Study Group 5 in cooperation with the ETSI Technical Committee on Environmental Engineering and in liaison with the 3rd Generation Partnership Project (3GPP) and the GSM Association (GSMA). ITU-T L.1330 accounts for the fact that optimizing the energy efficiency of equipment within a network does not guarantee the optimization of its overall energy efficiency. The standard takes a more comprehensive view of a RAN, incorporating impacts on energy efficiency caused by the interactions of interconnected equipment within complex networks. The scope of the standard extends to radio base stations, backhauling systems, radio controllers and other infrastructure radio-site equipment. The technologies covered are GSM, UMTS and LTE (including LTE-Advanced). ITU-T L.1330 offers a pragmatic measurement approach that focuses on the performance of 'partial' networks to extrapolate estimates of the energy efficiency of 'total' networks. It provides for a total network to be defined by topologic, geographic or demographic boundaries, enabling estimations of the energy efficiency of an operator's network, a country or continent's networks, or networks distinguished by their coverage of urban or rural areas. The result of these estimations is captured by an 'assessment report', the form of which is detailed by the standard.

Ericsson, Telefónica and RWTH Aachen University Demonstrate LTE for Smart Meters

Ericsson, together with Telef nica Germany and E.ON Research Center at RWTH Aachen University, demonstrated the feasibility of using LTE networks in smart meters for the energy sector. Trials proved

LTE prioritization, a standard feature of LTE, can provide a highly reliable and flexible alternative to existing powerline or fixed network connections of smart meters. Smart meter roll-out planning is picking up speed in Germany, among other places. At the same time, on-going LTE network deployments open new opportunities for utilities to use public networks for communicating with their smart meters. Utility IT systems can use the information collected from smart meters as a tool to help them manage their power networks in the context of increasing integration of volatile renewable energy sources, such as wind and solar power, into the power network. Communication of new energy tariffs can be sent to the meter by the utility to encourage the use of energy at the time when it is available in the network from renewable energy, for example, on a sunny or windy day. The trials demonstrated that even under heavily loaded radio network conditions, the stream of messages from the smart meters can be received within the expected transmission time period of less than 100 milliseconds at the central utility IT systems over a commercial Ericsson LTE base station.

Professor Monti, Director of the Institute for Automation of Complex Power Systems (ACS), E.ON Research Center at RWTH Aachen University, says: "As the installation of smart meters progresses, and communications and power network technology develops towards smart grids, more and more business opportunities are opening up for utilities. They can improve the services they offer their customers and to optimize their networks, enabling the large-scale integration of renewable energy sources into the power generation mix while maintaining the highly reliable power network service that society needs to function efficiently." The advantage of applying the QoS features to the meter traffic is that even in the rare case of overload conditions, the smart meter messages will not be delayed

or dropped and will be delivered to serve smart meter applications. This means that messages sent to a pre-paid meter to reconnect a customer that has just phoned to buy a top-up for their electricity or gas meter, will happen instantly, regardless of the network load conditions. In the trials, the stream of message from the smart meters was prioritized using the Quality of Service (QoS) features of LTE. Using prioritization, smart meter messages were promptly received even in an overload situation, when other traffic on the network had heavy delays. The trials were conducted using an Ericsson LTE base station set up at the ACS Institute of the E.ON Research Center at RWTH and connected to the Ericsson Core Network facilities available at Ericsson Eurolab in Aachen. The world-class RTDS power network simulator of the E.ON Research Center was used to generate the stream of messages according to the specifications of the Smart Meter use case provided by Telefónica. The tests followed an independently conducted set of simulations of the messaging use case on the Ericsson LTE high performance simulator. The results from the simulation showed that the prioritized MMS message streams were transmitted promptly even in radio network overload conditions. These simulation results were confirmed by the tests sending the messages over the air with the real base station.

OFCOM Research Shows 4G Significantly Outperforms 3G Networks

The UK's telecoms regulator, OFCOM has published research into 4G and 3G mobile broadband performance. Overall, 4G networks performed much better than 3G networks in five sample towns and cities tested - Edinburgh, Leeds, London, Newcastle and Poole/Bournemouth - where both 4G and 3G networks have been rolled out. In these areas, 4G networks delivered an average download speed of 14.7Mbit/s (compared with 5.9Mbit/s on 3G) and took 0.72 seconds to load a web page (compared with 1.04 seconds on 3G). The research, which collected 120,000 test samples on smartphones, also highlighted variations in performance between the UK's network operators - EE, O2, Three and Vodafone - across four key measures: EE delivered the

fastest average 4G download speed (18.6Mbit/s). Overall, 97% of test samples across EE, O2, Three and Vodafone provided 4G download speeds above 2Mbit/s, typically sufficient to support high capacity video services. Three was the quickest on average for web browsing over 4G (an average of 0.63 seconds to load a web page). EE delivered the fastest average upload speed of 17.6Mbit/s. Latency was more consistent than the other measures across the 4G networks tested (an average of 53.1 milliseconds).Ofcom's research provides a snapshot of how 4G and 3G networks performed for EE, O2, Three and Vodafone in the five towns and cities between October and December 2014.The report is intended to provide information that can help consumers understand how 4G and 3G mobile networks perform and support consumers in choosing a service that best suits their needs. The findings are also expected to encourage providers to improve their performance.

4G networks performed much better than 3G networks

Mobile operators continue to invest in and expand their networks as more people take 4G services.EE's 4G network now covers 81% of UK homes and businesses, up from 68% in June 2014. O2 and Vodafone have increased their 4G coverage to 66% and 65% respectively, up from 43% and 37% in June 2014. Three's 4G coverage is reported here for the first time, reaching 53% of premises in March 2015.The average download speed for 4G services was 14.7Mbit/s, more than twice as fast as the average 3G speed (5.9Mbit/s) across the five towns and cities tested. Web browsing was faster on 4G than 3G, taking an average of 0.72 seconds to load a standard web page on 4G, compared with 1.04 seconds on 3G.Upload speeds for 4G services (13.6Mbit/s on average) were more than eight times faster than 3G (1.6Mbit/s on average). 4G networks had lower latency than 3G networks. Across Ofcom's test sites, average latency was 53.1 milliseconds (ms) on 4G while on 3G it was 63.5ms.

4G download speeds

The average download speed for 4G services was 14.7Mbit/s. EE delivered the fastest average 4G speed in the towns and cities tested, at 18.6Mbit/s. For Vodafone, average download was 16.4Mbit/s, O2 was 13.9Mbit/s and Three was 8.5Mbit/s.

Average download speeds, by provider, Q4 2014

Overall, 97% of test samples across EE, O2, Three and Vodafone provided 4G download speeds above 2Mbit/s, typically sufficient to support high capacity video services.EE delivered 4G download speeds faster than 2Mbit/s in 99.8% of test samples. This compared with 98.7% for Vodafone, 98.1% for O2 and 89.9% of test samples for Three.

Web browsing on 4G

Across all 4G networks tested, average web browsing speed was 0.72 seconds. Three had the fastest average 4G web browsing speed, taking an average of 0.63 seconds to load a web page. The average time on O2's network was 0.71 seconds, while there was no significant difference between the 0.76 and 0.77 seconds recorded by Vodafone and EE respectively. Across all the four networks, 83.4% of test samples provided 4G page loading speeds of under one second. However, the proportion was lower for EE (62.9%), with nearly a third (29.9%) of EE's web browsing test samples failing to load within 15 seconds.

4G upload speeds

The average 4G upload speed was 13.6Mbit/s, eight times faster than 3G at 1.6Mbit/s. EE had the fastest average 4G upload speed in the towns and cities tested, at 17.6Mbit/s, followed by O2 (13.2Mbit/s) and Vodafone (13.1Mbit/s). Three's average 4G upload speed was 9.4Mbit/s.EE, Vodafone and O2 delivered upload speeds faster than 10Mbit/s in over two thirds of test samples (69.7% for EE, 68.7% for Vodafone and 68.5% for O2). Less than half of Three's upload speed test samples were faster than 10Mbit/s (47.4%).

Latency on 4G

Latency represents the responsiveness of the network, measured by recording the time a small piece of data takes to travel to a point and return a response to the user's device. Lower latency is important for things like gaming, video calls and web browsing. The average latency across all 4G networks tested was 53.1 milliseconds (ms), compared with 63.5ms on 3G. EE had the lowest average latency on 4G, at 48.4ms. For Three it was 50.9ms, for O2 it was 55.2ms and for Vodafone 59.5ms. Latency on 4G was more consistent than the other measures across the mobile networks tested.

Each mobile operator saw over 80% of test samples provide latency speeds within 40ms and 80ms.

Differences in 4G performance in areas tested

Ofcom's first research, published in November 2014, was carried out in Birmingham, Edinburgh, Glasgow, London and Manchester. Ofcom chose to vary where it measured mobile broadband for the second phase of research to provide a wider snapshot of mobile broadband in UK towns and cities. Ofcom tested in two cities in both phases of research (Edinburgh and London), so a comparison between data collected in March - June 2014 (Q2 2014) and October - December 2014 (Q4 2014) is only possible for these two cities. In London, there were no statistically significant differences between Q2 2014 and Q4 2014 in overall average 4G download speed (13.1Mbit/s, Q2 2014, and 13.2Mbit/s, Q4 2014) or average web browsing speed (unchanged between Q2 and Q4 2014 at 0.72 seconds). In Edinburgh, there was a 12.5% decrease in average 4G download speed, from 16.8Mbit/s in Q2 2014 to 14.7Mbit/s in Q4 2014. As more people are taking 4G services from the mobile operators, this is likely to affect the average speeds being received. Average web browsing speed improved in Edinburgh by 10.3% (0.80 seconds in Q2 2014, down to 0.72 seconds in Q4 2014).In the five towns and cities tested in Q4 2014, the fastest average 4G speeds across all four networks were in Poole/Bournemouth and Newcastle, at 15.6Mbit/s and 15.3Mbit/s respectively (with no statistically significant difference between these speeds). This compared with 14.8Mbit/s in Leeds, 14.7Mbit/s in Edinburgh and 13.2Mbit/s in London. Leeds saw the fastest average web browsing speed on 4G, at 0.71 seconds to load a standard web page. Edinburgh, London and Poole/Bournemouth all recorded an average web browsing speed of 0.72 seconds while it was 0.76 seconds in Newcastle.

Mobile coverage

The mobile market is changing rapidly as mobile operators continue to invest in and expand their networks. Coverage for 3G mobile varied between operators in March 2015, ranging from 90% to 98% of homes and businesses. For the same period, coverage of 4G varied between 53% and 81%. Claudio Pollack, Ofcom's Consumer and Content Group

Director, said: "People are increasingly connected, communicating and sharing content on their mobiles when out and about."4G is delivering a significantly enhanced mobile experience and, as these services roll out across the UK; our research will support consumers when choosing the right mobile package for their needs."

No More Exploding Phone Batteries Promise Researchers

Stanford University scientists have invented the first high performance aluminum battery that's fast charging, long lasting and inexpensive. Researchers say the new technology offers a safe alternative to many commercial batteries in wide use today."We have developed a rechargeable aluminum battery that may replace existing storage devices, such as alkaline batteries, which are bad for the environment, and lithium-ion batteries, which occasionally burst into flames," said Hongjie Dai, a professor of chemistry at Stanford. "Our new battery won't catch fire, even if you drill through it."Aluminum has long been an attractive material for batteries, mainly because of its low cost, low flammability and high-charge storage capacity. For decades, researchers have tried unsuccessfully to develop a commercially viable aluminum-ion battery. A key challenge has been finding materials capable of producing sufficient voltage after repeated cycles of charging and discharging.

Graphite cathode

An aluminum-ion battery consists of two electrodes: a negatively charged anode made of aluminum and a positively charged cathode."People have tried different kinds of materials for the cathode," Dai said. "We accidentally discovered that a simple solution is to use graphite, which is basically carbon. In our study, we identified a few types of graphite material that give us very good performance."For the experimental battery, the Stanford team placed the aluminum anode and graphite cathode, along with an ionic liquid electrolyte, inside a flexible polymer-coated pouch."The electrolyte is basically a salt that's liquid at room temperature, so it's very safe," said Stanford graduate student Ming Gong, co-lead author of the Nature study. Aluminum batteries are safer than

conventional lithium-ion batteries used in millions of laptops and cell phones today, Dai added."Lithium-ion batteries can be a fire hazard," he said. As an example, he pointed to recent decisions by United and Delta airlines to ban bulk lithium-battery shipments on passenger planes "In our study, we have videos showing that you can drill through the aluminum battery pouch, and it will continue working for a while longer without catching fire," Dai said. "But lithium batteries can go off in an unpredictable manner - in the air, the car or in your pocket. Besides safety, we have achieved major breakthroughs in aluminum battery performance."One example is ultra-fast charging. Smartphone owners know that it can take hours to charge a lithium-ion battery. But the Stanford team reported "unprecedented charging times" of down to one minute with the aluminum prototype.

Durability is another important factor. Aluminum batteries developed at other laboratories usually died after just 100 charge-discharge cycles. But the Stanford battery was able to withstand more than 7,500 cycles without any loss of capacity. "This was the first time an ultra-fast aluminum-ion battery was constructed with stability over thousands of cycles," the authors wrote. By comparison, a typical lithium-ion battery lasts about 1,000 cycles."Another feature of the aluminum battery is flexibility," Gong said. "You can bend it and fold it, so it has the potential for use in flexible electronic devices. Aluminum is also a cheaper metal than lithium."

Applications

In addition to small electronic devices, aluminum batteries could be used to store renewable energy on the electrical grid, Dai said."The grid needs a battery with a long cycle life that can rapidly store and release energy," he explained. "Our latest unpublished data suggest that an aluminum battery can be recharged tens of thousands of times. It's hard to imagine building a huge lithium-ion battery for grid storage."Aluminum-ion technology also offers an environmentally friendly alternative to disposable alkaline batteries, Dai said."Millions of consumers use 1.5-volt AA and AAA batteries," he said. "Our rechargeable aluminum battery generates about two volts of electricity. That's higher than anyone has achieved with aluminum."But more improvements will be needed to match the voltage of lithium-ion batteries, Dai added.

Innovating against Adversity: Paltel continues to grow Telecom Services in Palestine without 3G Technology

The Palestine Telecommunications Company, also known as Paltel Group is the telecommunications leader in Palestine and its establishment in 1997 as a public shareholding company was a major milestone in the development of the industry in Palestine. Over the past 18 years, Paltel Group developed into a market leader in the Palestinian ICT sector with a market capitalization of $1.06 billion USD as stated in its 2014 financial results. The company's resilience is also manifested in strong investor confidence providing its stock, unrivaled dominance on the Palestine Exchange with a 31% of the total market capitalization. Paltel Group continues to employ over 3,000 employees in Palestine and its operations have been sustained with net earnings growing from $12.1 million USD in 2000 to $120 million USD in 2014.

ICT plays a critical role in the Palestinian economy representing an estimated 6% of the Palestinian GDP. The ICT sector is well placed to make use of the country's rich human capital, a well and young educated Palestinian population, with more than 2,500 students graduating from Palestinian universities on an annual basis with specialization in the ICT field. The Palestinian market place is endowed with a relatively cheap labor force, 75% lower than in Western Europe and the United States. Despite the fact that education skills are needed to refine problem solving and innovation, the overall ecosystem is promising but spoiled by the imposed curb on access to 3G frequencies as imposed by the Israeli Authorities.

Paltel Group's mobile arm, Jawwal has an estimated 2.7 million mobile subscribers in Palestine. The original frequency allocated to Jawwal in 1998 was allotted to serve 240,000 subscribers. Since the year 2000, Jawwal has been on record requesting from Israel additional frequencies to allow more capacity to serve the additional customer base, to solve problems of congestion and drops in the quality of services. Jawwal is currently operating on the 2G band with 2.4MHz dedicated and 2.4MHz shared, which has placed the company in a desperate state regarding additional frequencies to sustain its services. As a result,

Jawwal has been placed at a major competitive disadvantage making it nearly impossible to compete against established Israeli telecom operators who are currently making significant 3G and 4G infrastructure investments across the West Bank. Although Jawwal is one of the licensed telecom providers in Palestine, its market share is constantly being eroded by illegal competition. During a recent fieldwork survey conducted in the West Bank by Jawwal in Q3 2014, 10% of Jawwal users indicated that they hold an Israeli SIM, mainly to benefit from 3G services they cannot access with the Palestinian telecom operators.

Illegal infringements by Israeli operators into the Palestinian market manifests itself by the sustained deprivation of 3G frequency to Jawwal and the other telecom operator in Palestine by the Israeli authorities. For years, Israeli operators have been able to illegally install their 3G towers throughout the West Bank to target the Palestinian population-essentially Paltel Group's customer base. There is growing evidence that Israeli operators are not only a threat to mobile operators in Palestine, but are penetrating the domain of fixed line and data operators as well.

In practice and contrary to the clear provisions of Article 36 of Annex III of the Oslo Accords Interim Agreement, Israel continues to restrict Palestine's access to the electromagnetic sphere by preventing the deployment of 3G technologies, preventing infrastructure construction in Palestine, destroying Palestinian broadcasting infrastructure, limiting the selection of equipment to be imported and easing Israel's unauthorized telecom operations in Palestinian areas and intentionally undermining the Palestinian Authority's jurisdiction. Despite continuous Palestinian requests for the release of 3G frequencies, Israel

continues to deny Palestinians the right to access the needed spectrum while at the same time granting Israeli telecom operators 3G and 4G technologies.

Today, 3G is critical for advancing the socio-economic development of Palestine where it is essential to succeed in today's technology and knowledge based economies. According to research carried out by the GSMA and Deloitte regarding the impact of mobile telephony on economic growth "a 10 per cent rise from 2G to 3G penetration increases GDP per capita growth by 0.15 percentage points; and in developing markets, a 10 per cent expansion in mobile penetration increases productivity by 4.2 percentage points." Direct investments in communication technology development are strongly correlated with increased job creation. Digital inclusiveness contributes to an increase in direct and indirect employment, capital investments, technology infrastructure and creation of new industries. One of the fastest growing areas in the IT industry is the development of applications for smart phones and wireless communications, which has become a key opportunity for Palestinian entrepreneurs. 3G technology will further reduce youth unemployment which is at 40% by providing an entrepreneurial ecosystem where Palestinian youth can use mobile technology to innovate new startup businesses.
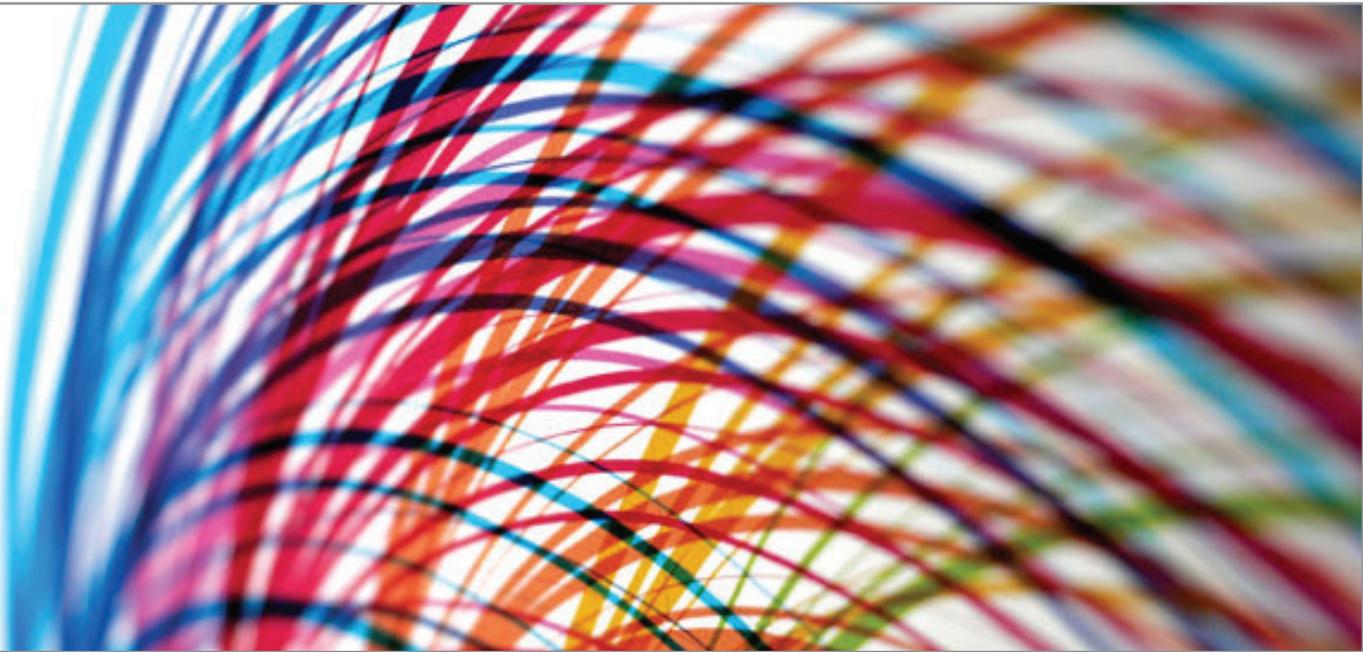
Paltel Group's growth may depend upon commercial ability to offer 3G services as the spread of smart phones continues and the world moves onto 4G and LTE services. According to the GSMA, "The number of 3G connections globally has increased dramatically in recent years, growing from just over 600 million in 2009 to over two billion in 2013." Unfortunately, the lack of 3G for Palestinian operators is estimated to create an economic loss ranging between $80-100 million USD annually. Hence, Paltel Group has estimated that the lost opportunities in the deployment of 3G and 4G services from 2009-2013 for Jawwal is $177 million USD. If Paltel Group does not receive 3G frequencies from Israel soon, lost revenues from

2014 onwards are projected to be $34 million USD annually. Access to 3G would also have a significant impact for the entire ICT sector in Palestine, generating an additional $60 million annually for the sector, in addition to $150 million USD in new revenue streams for the Palestinian Authority.

In 2010, 3G was launched in neighboring Jordan. By the end of 2014, 3G share in Jordan constituted 43% of total connections and 3G connections jumped by 24% during 2014. 56% of unique mobile subscribers in Jordan were connected to the internet in Q4 2014, 77% of them via the 3G network. However, 3G was launched in Israel much earlier, 2004. By the end of 2014, 3G share in Israel constituted 78% of total connections and 3G connections jumped by 11% during 2014. 87% of unique subscribers in Israel were connected to the internet in Q4 2014, 84% of them via the 3G network.

The deployment of 3G technology is important for Palestine to enable the provision of data applications over cell phones. Over the years, Israel dragged its feet in regards to 3G spectrum provision to Palestine. With the advent of yet more innovation and more advanced spectrum such as 3.5G, 4G/LTE and LTE, Israel continues to restrict the use of frequencies and limits Palestinian access to even 2G frequencies placing Paltel Group at great peril regarding the basic voice communications abilities of operators, let alone data abilities. The lack of frequencies not only has a destructive impact on mobile operators in any country, but also on the ability of Internet providers to function properly or become competitive regionally. This holistic handicap is detrimental to any national economic growth, prosperity and even security.

The Networked Society: a new paradigm shift

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From Industrial Economy to Networked Society

Some of the most powerful technologies ever created are rapidly invading all aspects of our everyday lives. This article outlines how digitization is exponentially leveraging our businesses and societies from the industrial revolution economy to the Networked Society era that is constantly changing, responding, experimenting and adapting.

The industrial economy, in its most basic sense, was built on the automation, efficiencies of mass production and resources specialization. It stimulated scale, standardization and proprietary control. This economic system brought to humanity unparalleled benefits, from new work opportunities, poverty reduction and affordable travel to vastly greater access to health care and financial services.

Nonetheless, power largely remained in the hands of few privileged persons and many of the vertically integrated organizations that have emerged in this economy are now suffering from major inefficiencies and competitive barriers.

They are also significant contributors to some of our most pressing global challenges, including social inequality, echo pollution and energy high consumption.

During the industrial economy era, new technologies used to take decades to be adopted on a large scale basis. Computers, Internet and mobility helped in reducing the adoption time to years and months. Social media is further reducing this time to days and is mobilizing millions for causes in just few hours, leading to major societal and political changes in countries where establishments and regimes were considered too anchored and strong to collapse.
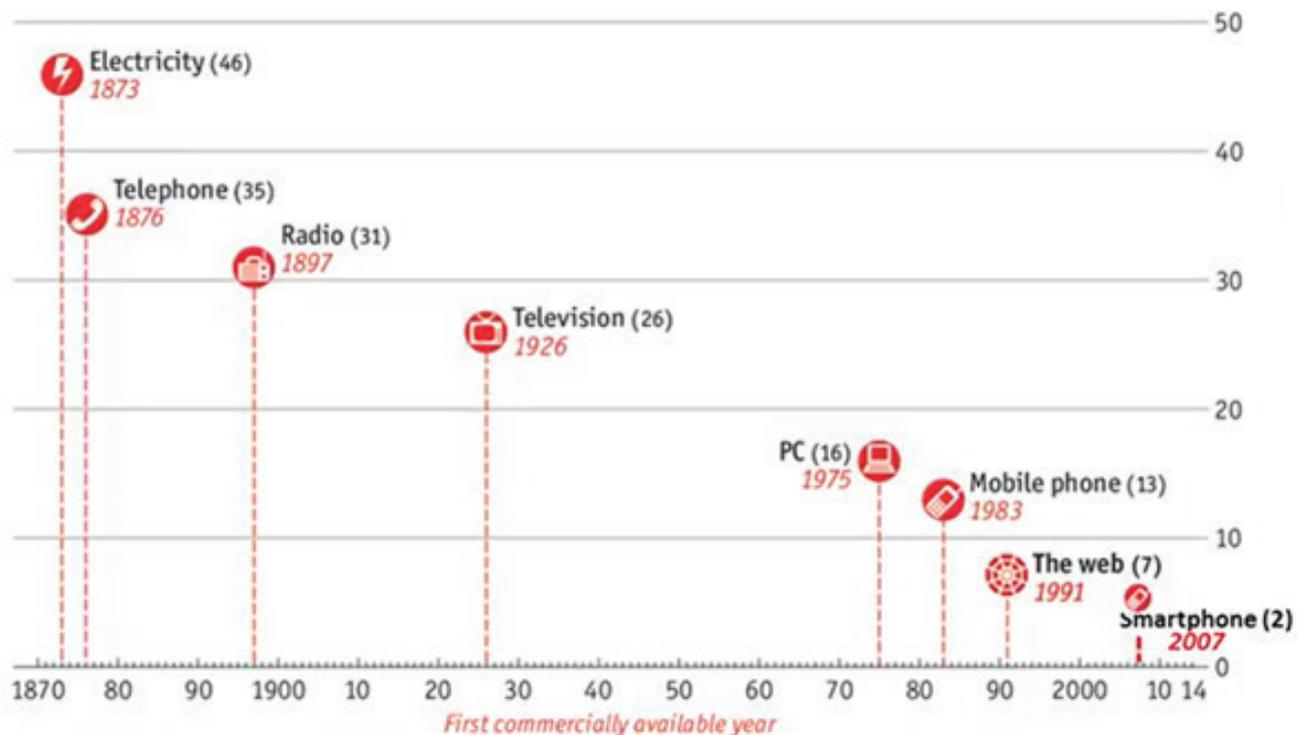
While it took telephones 35 years to be adopted by quarter of the American population at the beginning of the 20st century, smartphones needed only two years to achieve the same penetration rate in the US in 2007, at the beginning of the Networked society era.

Technology adoption
Years until used by one quarter of American population

Digital Dynamics in a Physical World

Digitization and ICT have been fundamentally transforming how we organize our lives, businesses and societies.

But only recently some of the most powerful technologies ever created became intensely personal. They are now embedded not just into our mobile devices and cloud software, but into our everyday expressions, interactions, relationships and exchanges.

The result is an unprecedented capacity for individual empowerment, entrepreneurship and innovation. Two decades after the emergence of the Internet era, we now expect not just instant online access to information and to our contacts and services from anywhere in the world, we also expect these to be intuitively organized, customized, managed and presented for us, without ever having to ask.

Through multiple online personae, we adapt our appearance, language and even our name according to the contexts and communities we encounter. We make new acquaintances and business contacts, find nearby friends, and navigate completely new worlds thanks to the contextual awareness, social connections and past preferences stored in a single mobile app. Our very identities are therefore defined less by the traditional gatekeepers of local and national society, and more by the digital services, platforms and global communities we choose. As these digital infrastructures and interactions become increasingly essential to the functioning of our societies and economies, it is in everyone's interest to understand their potential and ensure their integrity.

Basic social rights such as personal privacy and security will require new definitions and protections. Safeguards will be needed to protect individuals from the abuse of information and the rise of new monopolies. And affordable broadband connectivity will need to be extended to billions of individuals who remain economically excluded. If the Networked Society we are now entering is to be a more inclusive, equitable and empowering one, we must start by examining the fundamentally different nature of a physical world fuelled by digital connectivity.

We reached a stage where we should look beyond the purely technological effects of the era we call the Networked Society and attempt a broader understanding of its transformational business and social dynamics that are now emerging on a global scale.

From Moderate and Linear to Exponential and limitless Change

Moore law predicted that computational capacity will continue to double roughly every 18 months. The pace of this development keeps getting amplified by rapid improvements in software, resulting in artificial intelligence and advanced algorithms that are quickly evolving to understand and interpret some of our most complex natural processes.

At the same time, the ability to access this capacity is multiplying due to sharp increases in bandwidth, and improvements in latency and other QoS parameters. Interfaces are also becoming more seamless due to advances in cloud computing as well as in visual, tactile and verbal interfaces.

Such exponential improvements have brought what just over a decade ago were considered industrial-strength processing and communication capabilities into the homes and hands of individuals everywhere. Thanks to this highly capable infrastructure, data and information have become the new raw materials for value generation. Metadata, sensor data, interaction patterns, behavioural information and much more are generated in massive volumes and made available in real time. We have reached a point where global networks are equally valuable in terms of content – for example, the information they hold and make available for innovation and extraction of new insights – as they are in terms of their traditional functional value of providing connectivity. The continual improvement of ICT infrastructure also provides increasingly complete off-the shelf capabilities. Anyone starting a company today can acquire all the necessary tools and developed business practices – including a complete e-store, office environment, back-office support and more – at a fraction of the cost compared with just a few years ago. This radically tears down barriers for entrepreneurship, opening possibilities for people to engage in new economic activities in much more flexible settings. The effect is that many more ideas will be tested, with a corresponding rise in overall levels of innovation. Accelerating technology developments in the core of ICT, the rise of data as a raw material and the powerful enabling capabilities of ICT together constitute an exponential change in new forms of value creation. As a result, advanced ICT capabilities represent a fundamentally new starting point for technological progress in almost every area. New applications of emerging technologies such as 3D printing, robotics, biotechnology and smart materials will not only be created at an accelerating pace, but will see ICT rapidly integrated into their technological cores.

Fundamental Enablers in the Networked Society

The Networked Society represents a fundamental paradigm shift for people, business and society. This shift is continuously discovering new resources, unleashing new forms of value and transforming the most basic logics of life and business. However, in tomorrow's networked economy, the key enablers of growth and innovation come not from physical

assets and infrastructures, but from the people, platforms and insights that are leveraged to reinvent them. This represents a shift from static objects to dynamic services, from physical communities to digital networks and from centralized production to distributed knowledge. The physical world, in short, behaves more like a digital one – enabled by a fundamentally new set of building blocks for value creation:

DIGITIZATION – EXPONENTIAL AND UBIQUITOUS

Physical products are either becoming digital services or are significantly enhanced with new digital service capabilities. An organization's digital assets rise in importance, becoming some of the primary sources of business value, and physical processes become real-time data flows. Wherever possible, business practices are digitized to become faster, more relevant and more cost-efficient.

USERS – PARTICIPATING AND ACTIVE

We are moving away from a world defined by hierarchy and linear thinking into a paradigm centered on individual context with a culture defined by collaboration and participation. At the heart of any organization are its users – the students, patients, customers and citizens whose engagement and contributions are vital in maximizing the network's value. As users become actively involved contributors of knowledge and enthusiasm to the networks in which they participate, products and services will improve their relevance, benefit from new development insights and result in co-created experiences. As a result, users are an increasingly vital asset for any public or private organization.

THINGS – CONNECTED AND INTELLIGENT

A product, once designed, is no longer limited to performing its original function. We are entering a reality in which billions of physical objects are embedded with online intelligence and layer upon layer of digital interactivity. These connections, whether between wearable devices, cars and home-automation systems, or among networked urban infrastructure and sensor-equipped industrial machinery, will serve as enablers for more dynamic products enhanced with a wealth of new services that improve product performance and achieve new levels of

object network efficiency.

DATA – OWN, SHARED AND OPEN

Thanks to new analytical and algorithmic tools, the rising amounts of data created by practically every person, thing and interaction can now be combined across object networks to enable new forms of collective reasoning for improved decision-making and automated tasks. Organizations will harness and synthesize this data – whether their own, shared or open data – dynamically and in real time as a new resource to deliver insights that were never before possible. However, without trust in the privacy and security of data used in these applications, the potential benefits in these areas will be severely limited.

CAPABILITIES – AVAILABLE AND ON-DEMAND

For an increasing number of entrepreneurs, starting a global business today requires little more than an idea, a user base and a network of collaborators. Funding can be crowd sourced. Factories can be rented. And specialized skills, work spaces and digital infrastructures can be acquired or downsized on demand. Many previous barriers to market entry and global scale will be lowered or eliminated as a result.

PLATFORMS – ECONOMICS AND SCALE

Most business offerings today consist of a product or service. A technology platform, by contrast, makes it possible to provide a function, a network of relationships or a completely new marketplace for one's own products and services, and those of others. By opening up entire business processes to other stakeholders, the platform serves as the technological base upon which customers, developers, businesses and their partners can build added value through increased participation. Wherever a platform emerges as a business-critical infrastructure for a wide range of other businesses, it not only reduces transaction costs for various business and peer-to-peer functions to nearly zero, but becomes an economic force with a logic of its own.
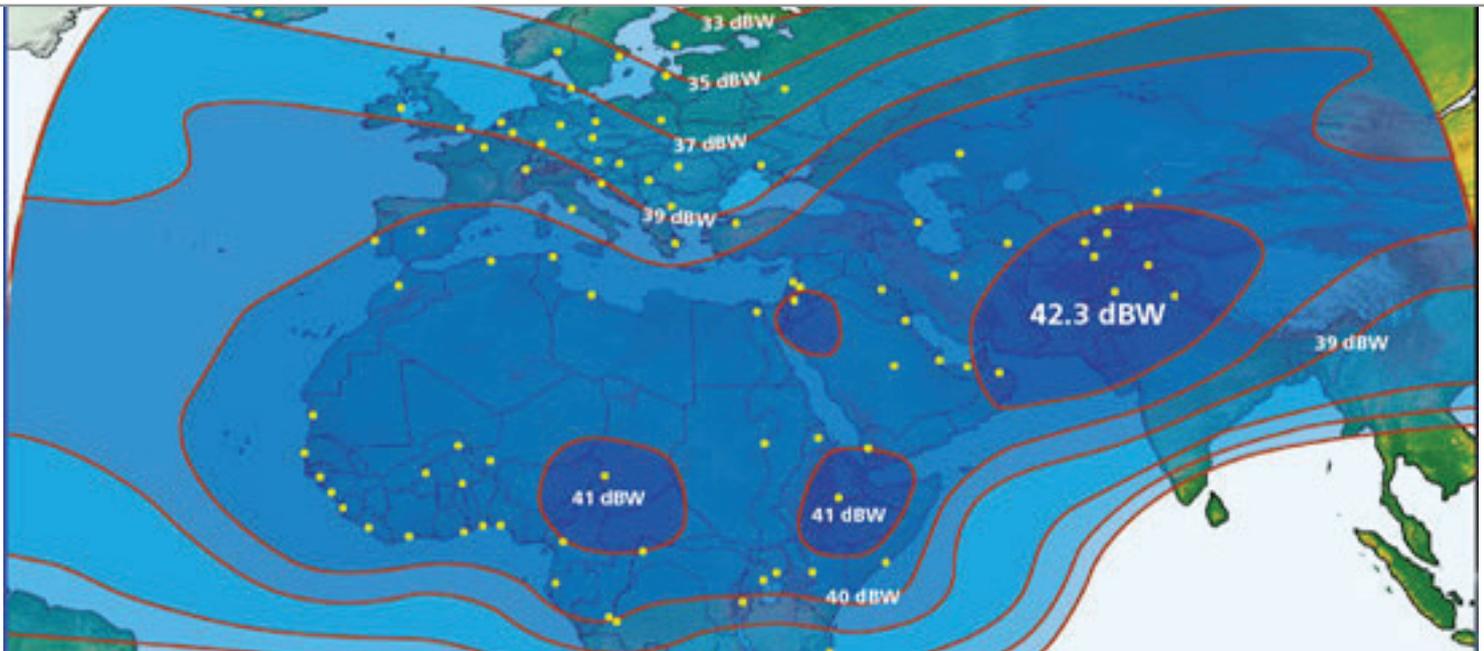
New bands has never been more promising with ARABSAT projects

Arabsat new chapter is to march into its new bands resources, Joining its customers in developing networks to operate on its available Ku Appendix-30B on Arabsat-5A & Extended C-band on Arabsat-5C to ultimately utilize both bands completely. Presenting major opportunities to establish new networks and the expansion of existing networks onboard its fleet.

In an effort to make a vision into reality Arabsat joined forces with its customers in a substantial involvement in an extended C-band backbone network to boost the development of services offered to a high standard and become robust providers in the African continent.

Expanding further into extended C-band Arabsat strategic partnerships with CETel & MICT to broaden the extent of its reach into the African continent with new ground facilities supported by Arabsat in line with its vision in the development of business to offer comprehensive GSM backhauling and broadband services on an exceedingly stable network especially in rural and remote regions.

Upon completion of the ground facilities, CETel & MICT will anchor on a space segment with unlimited business possibilities in the extended C-band.

▼ SATELLITE NEWS

Egyptian Space Authority: EgyptSat 2 Satellite is under Full Control

Egyptian EgyptSat 2 satellite, operating in orbit, is under the full control of the Egyptian experts, head of country's National Authority for Remote Sensing and Space Sciences (NARSS) asserted to Sputnik Saturday. The Russian Izvestiya newspaper reported, citing a source in the RSC Energia (Russian rocket and space corporation), that EgyptSat 2 on April 14 did not respond to commands from the Earth and control over the satellite was lost. Human factor was cited as the possible cause behind the loss of the satellite. "What was reported about is in fact a regular technical failure. It happens every now and then to all the satellites. The problem will be fixed in the next few hours," Medhat Mokhtar said. He explained that "any failure in control of satellite begins with absence of response to commands from Earth," adding that "the low battery could be the problem, but it will be fixed and control will be fully restored."

EgyptSat 2, Egypt's second remote sensing Earth observation satellite constructed by RSC Energia and NARSS, was launched from the Baikonur Cosmodrome on April 16, 2014. In January 2015, the control over the satellite was handed over to the Egyptian specialists. The satellite takes pictures of the planet in the visible and infrared spectrum in panchromatic and multispectral modes.

UAE Launches New Space Center in Preparation of Mission To Mars

The UAE's VP, PM, ruler of Dubai, Sheikh Mohammed bin Rashid Al Maktoum, has issued a decree to establish a space center to assist the country's mission to Mars, state news agency WAM reported. The new Mohammed bin Rashid Space center will conduct outer space research and support the UAE's drive to advance in the sector, a statement said. It will also help build the country's capabilities in outer space exploration. The center will oversee all preparations for the UAE's Mars probe, which the country plans to carry out by 2021.

It will also work on other technologically advanced projects assigned by the authorities. The Emirates Institution for Advanced Science and Technology (EIAST) will be affiliated to the new center. Last year, the UAE became the first Arab country to launch an outer space exploration mission when it announced a planned unmanned probe to the red planet in 2021. The probe will take nine-months to complete the journey, which spans more than 60 million kilometers. The mission, led by Emiratis, will make the UAE one of nine countries with space programs to explore Mars, and will also

coincide with the 50th anniversary of the country's formation. The Emirates has taken a number of steps to prepare for its first outer space mission. Soon after the launch of the Mars Mission, it launched the UAE Space Agency to supervise the mission and coordinate other space projects. The agency has since inked a number of research partnerships with other groups, including NASA, to build its expertise. UAE investments in space technologies currently exceed Dhs20 billion, and the Mars project will establish the sector as a key component of the national economy in the future, officials said. Sheikh Mohammed recently launched a Twitter campaign for residents to find an Arabic name for the country's mission to Mars.

Magellan Aerospace Exec Talks New Satellite Facility, University Partnership

Canadian aerospace company Magellan Aerospace recently unveiled its new Advanced Satellite Integration Facility (ASIF) in partnership with the University of Manitoba that the company believes will foster a productive relationship between academia and industry. The Winnipeg-based 6,000-square-foot facility aims to expand not only Magellan's own satellite operations, but also the presence of the nearby university in the satellite-engineering field.

To date, Magellan has designed and launched three satellites, including Scisat, a SmallSat the Canadian Space Agency (CSA) launched more than 10 years ago to study ozone depletion in the atmosphere. The company also developed Cassiope, which was launched just over a year ago to conduct space environment research as well as advanced telecommunications technology demonstrations. Through those previous projects, Magellan has often employed engineers and technicians at the university to help the company find a better way of doing things. "We had a long relationship with the University of Manitoba and previously did a number of study contracts with them on various materials or different types of research studies. We both wanted to have a more formal arrangement in place," Don Boitson, vice president and general manager of Magellan Aerospace, told Via Satellite.

When the opportunity arose to come

to research, develop, construct and test new satellite components at the ASIF, both agreed the partnership would help expand Canada's presence in the satellite field. The aims of the facility are two-fold, according to Boitson, the first being to allow engineering students to gain a hands-on, industry-based education.

Globecomm Orders New Earth Station, Antenna Upgrades from ASC Signal

Globecomm has signed a contract with ASC Signal for a new Earth station at the company's Laurel, Md. location, along with a Next Generation Controller (NGC) upgrade for a 5.6-meter antenna. The Earth station will feature a new NGC-equipped, 9.4 meter, Ku-band antenna system with full environmental controls.

Globecomm also selected several optional features in the NGC, such as the built-in spectrum analyzer, in order to have a better control system within a significantly reduced footprint. With this contract, ASC Signal will have provided more than 20 gateway antennas for the company.

RSCC's Express AM7 Satellite Reaches GEO

Russian Satellite Communications Company (RSCC) has confirmed that its Express AM7 satellite launched March 19 aboard a Proton rocket reached Geostationary Earth Orbit (GEO) on March 25. The company expects the satellite to begin operations in May 2015.

Built by Airbus Defence and Space, the Express AM7 satellite carries 80 transponders for services in C, Ku and L bands, and eight antenna systems, two of which are steerable. Multi-zone fixed antennas cover Russia, Western Europe and Asia, and steerable antennas can reach a wide sector. The satellite can also redistribute radio frequency capacity of the onboard retransmission complex betwixt and throughout coverage areas. "We at Rossviaz have followed the satellite's maneuvers with particular attention. The successful launch and subsequent commissioning of the satellite will make it possible for our subordinate entity to enhance operational efficiency and make a wider choice of services available to users," said Oleg

Dukhovnitsky, chief of Russia's Federal Communications Agency.

ARABSAT Celebrates Newtec's 30th Anniversary w/ Ambassador, Diplomats, Business + Industry Delegates

ARABSAT, satellite operator and services provider, has taken part in a networking dinner organized to celebrate the 30th anniversary of its partner Newtec, a specialist in satellite communications system design and integration. Held at the residence of the Ambassador of Belgium, in Riyadh, Saudi Arabia, the event was attended by a number of diplomatic, business and industry delegates from Belgium and Saudi Arabia. It was organized to celebrate the 30th anniversary of Newtec, which has been a partner of ARABSAT for around 10 years. Newtec's CEO Serge Van Herck and COO Sander Boom were among guests, along with the company's CTO and co-founder Dirk Breynaert, who was inducted into the Society of Satellite Professional International (SSPI) 2015 Hall of Fame earlier this year.

Khalid Balkheyour, President and CEO of Arabsat, said: "Arabsat is pleased to take part in this event as Newtec is one of our most valuable strategic partners. Our collaboration began 10 years ago with MENOS's project with the Arab States Broadcasting Union (ASBU) and since then Newtec's knowledge and experience have been adding value to ARABSAT services. We wish them the very best of success for many years to come." The networking dinner is the latest event to celebrate Newtec's anniversary which coincides with the company achieving 20 percent growth and revealing new market ambitions, including High Throughput Satellite (HTS), oil and gas and cellular backhaul.

Serge Van Herck added, "The Middle East market, in general, and more specifically the Saudi Kingdom, is a large potential growth market for Newtec and we enjoy the relationships we have here. We are honored to celebrate our anniversary at the Belgian Embassy with partners who are instrumental to our success."

SES 15 Satellite to Carry Raytheon WAAS Hosted Payload

Following a $103 million contract from the U.S. Federal Aviation Administration (FAA), Raytheon Integrated Defense Systems has awarded a 14-year contract to SES Government Solutions (SES GS) to host a payload on the upcoming SES 15 satellite. Raytheon's FAA contract funds a Wide Area Augmentation Systems (WAAS) hosted payload, which enhances the accuracy of Global Positioning System (GPS) from 100 meters to roughly 2 meters for improved air navigation. In the same contract, the FAA has also tasked Raytheon with developing two ground uplink stations to support the WAAS system within U.S. airspace.

Raytheon's contract with SES GS includes the manufacture of the hosted payload, launch on the all-electric SES 15 satellite, and 11 years of on-orbit operations. The company has options to extend the contract on an annual basis. Launching in 2017 to 129 degrees west, the satellite has a life expectancy of 15 years. SES selected Boeing to build the satellite on the Boeing 702SP bus, and Arianespace to launch it aboard an Ariane 5 rocket.

Telenor Integrates MarCom with Maritime Communications Partner

Telenor Maritime Radio is integrating its MarCom commercial maritime communications business unit with Maritime Communications Partner (MCP). Telenor ASA fully owns MCP, which has focused primarily on global coverage for cruise, ferry and offshore verticals. MarCom has focused on the Nordic market, providing satellite communications to ferries and other vessels. The transfer, which is internal to Telenor, enables MCP to expand and bolster its presence in Europe and the United States, as well as look to tap into Asia.

"We are developing our technology portfolio to address a bigger market in the maritime industry that consumes ever more bandwidth. We are integrating satellite and mobile to ensure the best possible customer experiences. Additionally, we will be able to increase the efficiency of, and develop the whole value chain resulting in cost efficient solutions," said MCPs CEO Frode Støldal.

RSCC's Express AM6 Satellite Goes Live

Russian Satellite Communications Company's (RSCC's) Express AM6 satellite, launched October 21, 2014

aboard a Proton rocket, has initiated service from the 53 degrees east orbital slot. Built by ISS Reshetnev with support from the Radio Research Institute of Russia and MDA Corporation of Canada, the satellite used electric propulsion to reach its location in Geostationary Earth Orbit (GEO). With the new satellite in place, RSCC plans to relocate the Express AM22 satellite that currently operates from 53 degrees east over to 80 degrees east.

Express AM6 carries 72 transponders in C, Ku, Ka and L bands for coverage over Russia, Europe the Middle East, Africa and Asia. The satellite fits in Russia's Federal Target Program, "Development of TV/Radio Broadcasting in the Russian Federation in 2009 to 2015," as part of the framework of Russia's federal space program. "Express AM6 has started operation according to the schedule and experts' forecasts. The Russian constellation development not only enhance the reliability of the satellite system, but also helps to protect the orbital slots," said Oleg Dukhovnitsky, head of the Russian Federal Communications Agency.

KVH Introduces TracVision TV8 Antenna

KVH Industries has released a new antenna system for satellite TV out at sea. The fully stabilized 81-cm (32-inch) diameter TracVision TV8 antenna system enables satellite television for maritime customers such as yacht owners, commercial fishing vessels, tankers and others.

Compatible with most Ku-band services, the system supports DirecTV, Dish Network, Dish HD, and Bell TV in North America, and TrueVisions, Astro, and Sky TV in the Asia-Pacific. TracVision TV8 uses Digital Video Broadcasting-Second Generation Satellite (DVB-S2) technology, and includes features such as an IP AutoSwitch option for multiple receiver installations and high-performance tracking to maintain picture quality on heavy seas.

US Government Awards Comtech EF Data $1.3 Million Contract

Comtech Telecommunications' subsidiary Comtech EF Data received an order from the U.S. government worth $1.3 million for satellite modems. The contract calls specifically for the SLM-5650A satellite modem for use in a government network.

The SLM-5650A modem supports data rates from 8 kbps to 155 Mbps and symbol rates from 32 ksps to 64 Msps. The device complies with MIL-STD-188-165A, modem types one, two, four, five and six for applications on Defense Satellite Communications System (DSCS), Wideband Global Satcom (WGS) and commercial satellites.

Comtech's modem provides standard MIL-STD-188-114 (EIA-530 / RS-422) and EIA-613 (HSSI) serial interfaces, can be optionally configured for G.703 and Low Voltage Differential Signaling (LVDS) serial interfaces, and can also be optionally equipped with a 4-port 10/100/1000 Base-T Ethernet network processor module. The modem also has available an optional AES-256 TRANSEC module that is compliant with the FIPS-140-2 NIST standard.

Brazil's Visiona Tecnologia Espacial About Halfway to Self-Sufficient Satellite Capability

Visiona Tecnologia Espacial, a joint venture between Telebras Telecomunicações Brasileiras and Embraer Defense and Security, estimates it is almost halfway to the point where it can build a satellite completely in-house. Established in 2012, the company's goal is to create a domestic satellite manufacturing capability in Brazil. "Today we measure around 35 to 50 percent the capability of Brazil to build out a complete satellite: platform plus the payloads. We have parts that today are off the shelf, which we could add in this 35 to 50 percent, but we still have a gap in the capability to do that," Eduardo Bonini, president of Visiona told Via Satellite. He estimated that Visiona's ability to compete internationally with small satellites is roughly two to three years away.

Visiona's primary focus today is the Geostationary Defense and Strategic Communications Satellite (SGDC). Slated for launch in September 2016 aboard an Ariane 5 rocket, the satellite has a payload of 50 Ka-band transponders for Brazil's Ministry of Telecommunications, and seven X-band transponders for the Ministry of Defense. Visiona is leading the integration of the system, including the satellite, its control segment, and the user segment, which is composed

SATELLITE UPDATES

SAMENA TRENDS _ APRIL_2015

of the gateway stations and end-user terminals. Thales Alenia Space is providing the control segment and is a key partner on the SGDC program. The satellite is based on the company's Spacebus 4000 platform. Communications and Power Industries (CPI) Satcom Division is supplying 500-watt continuous wave Ka-band Traveling Wave Tube Amplifiers (TWTAs) for telemetry, tracking and control.

Thales Alenia Space has an agreement with the Agência Espacial Brasileira (AEB), the Brazilian space agency, to facilitate the transfer of technology to Brazil. While Visiona helped negotiate the terms of the program, the joint venture had no participation in its implementation. Still, Bonini said the level of collaboration between the two companies has impressed him.

Orbital ATK Delivers DirecTV Satellite Four Months Early

Orbital ATK has transported the Sky Mexico 1 (SKYM 1) satellite for DirecTV to Arianespace's Kourou, French Guiana launch site after completing the manufacturing in 20 months — four months ahead of schedule. The satellite, Orbital ATK's first for DirecTV, will undergo pre-launch preparations ahead of a late May 2015 launch aboard an Ariane 5 rocket.

SKYM 1 is based on the GEOStar 2 platform, and is built for Direct-to-Home (DTH) broadcast services to Mexico, Central America and the Caribbean. The satellite has a launch mass of 3,000-kg and a design life of 15 years.

MTN Launches 'UltraBurst' Service for Targeted HTS Connectivity

MTN Communications has released "MTN UltraBurst," an on-demand, consumption based Ku-band High Throughput Satellite (HTS) service for yachting customers during the 2015 Mediterranean season. The service allows captains and Electronic Technical Officers (ETOs) using the MTN Maestro mobile app — MTN Conductor — to access higher connectivity speeds when desired. UltraBurst works with existing antenna hardware and can allocate bandwidth for specific users and devices on their networks. Yacht captains or ETOs can customize or

manage their UltraBurst service based on the needs of owners and guests. They can implement bandwidth bursts when needed, while maintaining the same levels for operational tasks and crew welfare services. UltraBurst is the first of several high-speed connectivity options MTN has planned for the near future, including the company's HTS Multi-Spot Beam (MTN HTMS) capacity, beginning in 2016.

Turkey Starts Building Turksat 6A Satellite

Turkey's state-run Anadolu Agency reports the country has started manufacturing the Turksat 6 satellite for Turksat. The five-year project is expected to cost roughly $205 million, with a launch in 2020. The Scientific and Technological Research Council of Turkey (TUBITAK) is leading the TurkSat 6A project with the support of Turkish Aerospace Industries (TAI), Military Electronic Industries (ASELSAN) and CTech. The satellite has a design life of 15 years and will cover Europe, Asia and all of Turkey.

NSR: Satellite Backhaul to Reach $5.3 Billion by 2024

Northern Sky Research (NSR) projects revenues from wireless backhaul over satellite will climb from $1.7 billion in 2014 to $5.3 billion by 2024. The research firm's recently issued "Wireless Backhaul via Satellite, 9th Edition" report shows a steady increase in the prominence of High Throughput Satellite (HTS) systems on this particular market.

NSR notes that traditional Fixed Satellite Service (FSS) capacity in C band and Ku band has been the predominant solution for backhaul and trunking in land, with growing business in maritime and aviation. However, the firm notes "a clear migration" by fixed land towers backhaul and trunking markets toward Geostationary (GEO) HTS. Nascent Non-Geostationary (NGSO) HTS players, such as O3b Networks, are making inroads into backhaul, trunking and mobility markets as well. With several Low Earth Orbit (LEO) HTS systems currently in the planning stages, NSR expects they could have a significant impact on total available capacity if one or two such programs do launch, potentially leading to price pressure on all offerings. "Non-GEO HTS equipment pricing, specifically antenna systems, will have to come

down dramatically compared to current O3b pricing in order to address CAPEX considerations," said Jose Del Rosario, research director for NSR and report author. "More importantly, although backhaul is a large and growing market, other applications will have to be targeted by LEO-HTS systems as the market opportunity is relatively limited given that all systems will target this market space. Incumbents will surely respond to the LEO-HTS threat in terms of lowering their own pricing such that the LEO-HTS impact until 2024 will likely be limited."

Satellite Builds a Future

In 2003 the World Bank issued an RFP to create a communications network with an ambitious mission: to begin the long process to reunite a nation whose history had left it divided, violent and poor. Few nations in our time need it more than this one. Its people and territory have endured conquest by the Greeks, Arabs, Mongols, Turks, British and Soviets. Following 2001 attacks in the USA, the Americans also arrived. The feudalistic presence of the Taliban has left the country with an ongoing war and struggle between the central government and ethnic groups. To many, not much has changed. But look closer. If we were to ask which of three nations, Afghanistan, Pakistan and Iran, were the first to implement 3G and offered the lowest telecommunications costs, most would not choose the right answer. Afghanistan.

A bid for a government communications network was put out to provide services to ministries and offices in Kabul. The winning bid went to Globecomm, an American company whose reputation for installing satellite networks in bad neighborhoods was well-known. Using C-band satellite, optical fiber and microwave links, the company connected 42 ministries and offices in Kabul and 34 provincial capitals. For the first time, central government had reliable telephone and email communications with the provinces. Provincial leaders had a chance to influence national policy without the risky journey to Kabul. Globecomm said it learned that the Ministry of Communications had separately purchased switches for mobile service from China. The switches had become the core of "telecom islands" – places where it was possible to make a local mobile phone call but with no access to other places. Globecomm changed

that. "What we originally planned as a private network," says Globecomm's Paul Johnson, "rapidly became a public network. We effectively became the backbone for a public telephone system, connected by C-band satellite to other cities over the Government Communications Network and, through our international gateway, to the rest of the world." The government network was functioning by the historic 2004 election. Other projects followed, each depending on a satellite backbone to provide national coverage. A District Communications Network connected a hub in Kabul to police, fire and other critical services in the country's 337 legislative districts. Globecomm installed digital telephone systems at National Army bases and connected them by satellite. A custom-designed satellite truck enabled mobile spectrum monitoring. With so much of the nation's communications depending on satellite, the truck gave the Ministry the ability to enforce spectrum regulations, issue licenses and shut down illegal operators.

Globecomm's executives are proudest of the fact that each project created assets that were transferred to Afghan Telecom. The goal is to make the Ministry a true regulatory body while Afghan Tel becomes the operator. It is working. The final outcome is far from certain in Afghanistan. But the nation's ability to attract outside investment and to keep raising the quality of Afghani communications, gives hope to a day when Afghan sees a better world. #bettersatelliteworld.

Azercosmos Selected for Satellite Services at Baku 2015 Games

The Baku 2015 European Games has appointed Azercosmos as an official supporter and supplier of broadcast telecommunication satellite services. The company is tasked with transmitting the games to billions of television viewers globally. Azercosmos will supply a Satellite Newsgathering (SNG) truck to relay the feed from Mingachevir, Azerbaijan to the international broadcasting center in Baku, the nation's capital. The inaugural event takes place from June 12 to June 28, and features sports such as wrestling, volleyball and gymnastics.

NASA, USGS Start Work on Landsat 9 and Free-Flyer Satellite

NASA and the United States Geological Survey (USGS) have started working on the Landsat 9 Earth observation satellite, with a launch planned for 2023. NASA's Goddard Space Flight Center in Greenbelt, Md. is leading the Landsat 9 flight segment. In addition to building the satellite, the space agency is also responsible for its launch and the initial check-out and commissioning. USGS will operate the Landsat 9 satellite and handling processing, archiving, and the free distribution of mission data.

NASA Goddard is also building a Thermal Infrared Sensor (TIRS) as a "free-flyer" satellite designed to closely match the TIRS instrument on Landsat 8. The Landsat 8 TIRS instrument had a three-year lifespan, whereas the upcoming free flyer is being designed for five years to ensure mission continuity. The free-flyer is scheduled to launch in 2019. "With a launch in 2023, Landsat 9 would propel the program past 50 years of collecting global land cover data," said Jeffrey Masek, Landsat 9 project scientist at NASA Goddard.

DataPath, Vislink Partner to Provide Cellular Bonding Technology for Broadcasting

DataPath, a provider of remote field communications solutions to the aerospace, government, broadcast, and infrastructure markets, announced a new partnership with Vislink, a service provider in the collection, transmission, and management of high quality video and data from the field to the point of usage. This partnership will allow DataPath to offer enhanced multimodal solutions, combining the best of both satellite and cellular communications technology to the broadcast market.

By combining DataPath's quick connect satellite and portable vehicle mounted terminals — the CCT 90/120/200 and DA120 — with Vislink's cellular bonding capabilities, broadcast operators will have an end-to-end solution to ensure connectivity. This new broadcast platform will give newsgatherers the ability to choose the most effective transmission path for in-field delivery back to the broadcast facility depending on their current situation or environment. "By offering cellular bonding solutions in addition to our portable satellite terminals, broadcasters will have a

reliable connection to transmit the news in real time, whether in an urban setting or an extreme remote location," said David Myers, president & CEO of DataPath. "Our new combined cellular and satellite platform will ensure that the remote broadcast team can get the best HD connection available, no matter where the action takes them."

Norsat Awarded US Defense Contract for Portable Satellite Terminals

Norsat International has received an purchasing order from the U.S. Defense Media Activity (DMA) for its GLOBETrekkerTM 2.0 portable satellite terminals, along with its 50W Atom series Block Upconverters (BUCs) to enable satellite uplink of live high definition or standard definition video from the field, as well as data transfer and email access.

The DMA is the U.S. Department of Defense's direct line of communication for news and information to its forces worldwide. The agency presents news, information and entertainment on a variety of media platforms, including radio, television, Internet, print media and emerging media technologies.

Norsat's GLOBETrekker 2.0 is a lightweight, fully-motorized, portable 1 or 1.2 meter aperture, auto acquire VSAT terminal that was built to military rugged specifications and is MIL-STD-810G and is Eutelsat certified. The GLOBETrekker 2.0 has an integrated Norsat LNB, Norsat 50W ATOM BUC, a modem specified by the customer, an MPEG2/4SD/HD Encoder and a DVBS/S-2 modulator to provide superior portability. Norsat's flagship software, LinkControl 7, is also integrated into the GLOBETrekker 2.0 terminal. The GLOBETrekker terminals are expected to ship in Q3 of 2015 with global training and support services following the terminal deliveries.

Globalstar Unveils New Satcom Antenna for Experimental Aviation Market

Globalstar announced its new aviation antenna is now available for use with Experimental Category Aircraft (STC for Part 23 aircraft approval pending), offering pilots fast and affordable satellite communication. Paired with the Globalstar Satellite Phone

(GSP-1700) or the Globalstar Sat-Fi satellite hotspot, the new aviation antenna allows for voice and data communication while in-flight and completely independent of cellular coverage. Currently, the GSP-1700 is free with select airtime plans. Also reaching beyond cellular, the SPOT Gen3 and SPOT Trace offer affordable, real-time GPS tracking. Pilots can track their route down to every 2.5 minutes and give individuals on the ground the ability to monitor departures and arrivals. Additionally, the SPOT Gen3 features location-based messaging and emergency notification technology.

Intelsat, BT and ITC Global Donate Emergency Satellite Solutions for Vanuatu

As communities in the South Pacific Islands of Vanuatu grapple with major devastation and severe power and communications outages left in the wake of Cyclone Pam, Intelsat, BT Group, and ITC Global have donated satellite capacity, equipment and manpower to help restore critical communication networks across Vanuatu. Providing vital broadband connectivity to humanitarian and disaster relief organizations working on-site, including NetHope, BT is using capacity on Intelsat 18 located at 180 degrees east, linking via the IntelsatOne terrestrial network at Intelsat's Riverside, Calif. teleport. Satellite service provider ITC Global delivered technical and engineering support to help restore connectivity at designated sites in Vanuatu. BT has also established a separate 24/7 Emergency Response Team (ERT) center based in Madley that will solely support the relief efforts of the installations teams that are working on the ground to restore power and connectivity to the South Pacific Islands of Vanuatu. "Anytime there is destruction of this magnitude, it is critical that humanitarian and relief organizations are able to access the connectivity they need so that they can quickly respond and help the communities impacted by the event," said Terry Bleakley, regional vice president for Asia at Intelsat. "Working closely with BT, our satellite solutions will help support the restoration and relief efforts happening on behalf of the citizens and communities in Vanuatu. Our thoughts are with those impacted by Cyclone Pam, and we are proud to be able to respond quickly

with these communications services."

Thuraya Certifies GRC Arion Solution to Provide Commercial TacSat

Thuraya Telecommunications Company and Global RadioData Communications (GRC) announced the successful certification of GRC's Arion solution. End-users can now use limitless Beyond Line of Sight (BLOS) broadcast range for their tactical multi-band, encrypted radios over Thuraya's broadband service.

The Arion solution is certified for use on the Thuraya network using the Thuraya IP and IP+ broadband terminals. It allows for the transmission of real-time encrypted communications directly to an operations room or another network anywhere in the world, be it land or sea, across Thuraya's coverage area. The solution enables operators to remotely control its features, minimizing the need to visit equipment in hostile environments. Its capability of passing encrypted voice and situational awareness data through unencrypted radios, allows it to be left unattended in the most strategically advantageous locations. "Deployed teams need to stay in touch with their operations room regardless of where they are. This key customer segment now has access to encrypted TacSat capability via this solution from GRC, which is a key strategic requirement for them." said Randy Roberts, chief innovation officer at Thuraya. "The Arion solution is available through our extensive distribution network of service partners around the world."

Surrey Satellite US, Aerojet Rocketdyne, NanoRacks Develop FeatherCraft Satellite Line

Surrey Satellite Technology US (SST-US) announced its collaboration with Aerojet Rocketdyne and NanoRacks on the development of the FeatherCraft platform, a satellite platform optimized for deployment from the International Space Station (ISS). The 100-kilogram, SST-US-designed platform is intended to exploit the full capabilities of ISS cargo resupply vessels and the NanoRacks Kaber deployment system aboard the ISS. Aerojet Rocketdyne's electronic propulsion system permits handling of FeatherCraft inside the ISS, meaning astronauts can position it on

the Kaber deployer for deployment into orbit. With a mission lifetime of five years, FeatherCraft will provide a low-risk, cost-effective satellite platform that can accommodate payloads with requirements of up to 45 kilograms and 50 watts. SST-US will manufacture, integrate, and test FeatherCraft at its Englewood, Colo. facility. "The Kaber launch service was a clear next step for NanoRacks to meet our company's constantly growing customer needs and desires to deploy larger satellites from the International Space Station," said Jeff Manber, chief executive officer of NanoRacks. "Kaber continues to promote ISS utilization, and the FeatherCraft platform expands the capability of payloads that can be deployed from ISS — furthering the ISS's dual role as a commercial nexus."

Sevis, Eutelsat Partner to Deliver 3G/LTE Backhaul over Ka-Sat

Sevis Systems, a developer of backhaul optimization technology, has successfully validated its platform for backhaul services on Eutelsat Communications' Ka-Sat satellite. The new solution offers a more affordable and optimized satellite backhaul service to specialized satellite service providers delivering end-to-end backhaul bandwidth to Mobile Network Operators (MNOs). Sevis and Eutelsat are now offering the solution across Ka-Sat's entire footprint of Europe, North Africa and the Middle East.

These new services can deliver 3G and LTE to remote or rural locations without access to terrestrial backhaul. Ka-Sat's ability to provide backhaul connectivity between a core network and the access infrastructure at a remote site is suitable for mobile operators and Professional Mobile Radio (PMR) for emergency services and civil defense. The Sevis integrated solution also allows service providers to develop and deliver software-defined backhaul services.

Based on Sevis' scalable 7000-Series hardware platform designed for IP high throughput backhaul environments, Eutelsat's partners and users can now leverage Sevis' optimization technology. In conjunction with Eutelsat's Ka-Sat high throughput network, the solution is designed to improve Return On Investment (ROI) savings for satellite service providers and MNOs conducting 3G backhaul, while establishing a seamless migration path to LTE backhaul, traffic offload and overflow.

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