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# SAMENA TRENDS

EXCLUSIVELY FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

**BUILDING DIGITAL ECONOMIES**

A SAMENA Telecommunications Council Newsletter

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**Dr. Syed Ismail Shah**  
Chairman  
Pakistan Telecommunication Authority



## 75. SAMENA COUNCIL ACTIVITY

Beyond Connectivity 2015

# International roaming regulations: Where does the SAMENA region stands?



International roaming, a hot issue for operators and regulators in the SAMENA region and beyond is catching attention with the growing competition induced by the evolving landscape of the telecommunications industry on multiple fronts. Keeping in view the industry trends over the past few years in view, international roaming rates and mobile termination rates have finally begun to drop as a result services such as unified roaming rates and the growing competition. As mobile operators search for new revenue streams, attention is turning to increasing usage of international roaming services.

Regional markets have shown great interest towards international roaming. It is encouraging to see unified roaming plans in the region with the indication that the industry is on track to address the significance of international roaming rates, but still there is a need for lowering international roaming rates in the SAMENA region - much in the way the other regions such as EU has. The international mobile roaming market is at an important point in its development, with a number of operational, technological, strategic and regulatory forces re-shaping a market that is made even more dynamic by changing end-user behavior. Telcos, therefore, have a great opportunity to capitalize on these changes and maneuver in the right way to be able to remain competitive. With the arrival of next generation mobile broadband technologies (such as LTE) comes a new technology standard that both produces new means for telcos in terms of quality of

experience offered to the end users, and at the same time also notably surging the intricacy of implementing and managing a stout roaming services in multi-technology environment.

International data roaming and its associated costs are of prime importance with the evolution of the next generation mobile technology that promises the availability of broadband access and anywhere. Also, it is encouraging to see unified roaming plans in the region with the indication that the industry is on track to address the significance of international roaming rates. SAMENA region is set to become an important hotspot in terms of international roaming revenues for mobile operators within the next few years. This trend appears to be driven mainly by the strong growth in the region's subscriber base and increased inbound and outbound travel between Europe and different countries of the regions and also within MENA countries.

Yours truly,



**Bocar A. BA**  
Chief Executive Officer  
**SAMENA Telecommunications Council**



**Dr. Syed Ismail Shah**  
Chairman  
Pakistan Telecommunication  
Authority



Dr. S. Ismail Shah ranks among Asia's most renowned telecom professionals, with expertise and experience spanning 2G, 3G, 4G, and 5G technologies. With an extensive background in technology implementation and telecommunications policy-making and regulation, Dr. Shah is serving as the Chairman of Pakistan Telecommunication Authority (PTA) since 2013, and has led some of the most high-profile undertakings in Pakistan's telecommunications industry, which has a worth of more than US\$ 21 Billion.

**Q.** How can regulators help to minimize investment risks while guaranteeing a healthy competition and open market choices? How has been the role of PTA in this respect?

**A.** We believe, regulators have a very challenging role to play: We have to protect our citizens' interests, provide incentives to the industry, attend to national-level needs and issues, create and sustain investor confidence and remain mindful of future needs of the consumers and the industry.

As a regulator, we are trying our best and have succeeded on many of these accounts primarily by being open to market dynamics and by exercising a culture of understanding, inclusion, and by encouraging transparent communications of needs and making terms and conditions of operating predictable. All this has been reflected, for the most part, in the creation of an



investment friendly environment within our telecoms industry, and via the existence of healthy competition within the market.

Pakistan has some of the world's largest and most active telecom players, such as Etisalat Group, Telenor Group, China Mobile, Vimpelcom, Abu Dhabi Group, Ooredoo Group, and Omantel, among others, operating their networks in Pakistan, which is among the largest and the most active ICT markets in the world. PTA has been able to provide recognizably good regulatory conditions for the markets players to make the most of their investments. We are aware of the fact that much still needs to be done, and more measureable ICT policies have to be put in place. We are active on the future front.

Pakistan's recent recognition at the GSMA and also by other international organizations for having placed ICTs in general and broadband in particular at the top of the government agenda also demonstrates the scale at which both investment and innovation take a center stage in our mind.

**Q.** How should the regulatory approach evolve to accommodate the rapid changes in technology and regional markets, such as the increased competition from alternative platforms and the emergence of new services?

**A.** We need to constantly evaluate the emerging needs of the society and the industry and introduce new thinking in the regulatory mindset as well. With the evolution of the overall telecoms & ICT market on a global scale, especially in the alternative communication technologies and the way they are being provided, there should be no doubt that traditional ways to regulate will have to be transformed. We should re-do the regulatory models, bring all the stakeholders on board and accommodate our industry's needs and cope with rapid changes in all dimensions of the ICT arena.

We need a better understanding of the requirements posed by the emerging OTT play in relation to our existing licensed telecom operators. The role of regulator should be that of an enabler and facilitator. The regulator should let the technologies develop, help in developing partnerships between



the content players or alternative service providers and existing network owners. All this should be done while ensuring a good quality of services to protect the interest for the consumers.

**Q.** With the evolution of the Internet and content industry, and given the emergence of innovative mobile apps, do you see digitization as being a significant driver of sustainable economic growth?

**A.** Arguably, many of the services and technologies that form the notion of digitization are, in fact, not new. It is when they are put together and when they facilitate much greater inter-technology and inter-service interaction that we begin to observe a greater degree of digital change. Mobile apps are not only doing that but are enhancing the reach of these services.

The new wave of next-generation devices, platforms, and digital applications will indeed enable and drive digitization at a much greater scale, and it is due to this belief that we are now seeing more industry-wide discussions on the Internet-of-Things (or Internet-of-Everything) worldwide. Digitization is a reality,

and we would like to see everyone contributing to its development and acceleration.

The availability of low cost smart phones, Mobile Apps and broadband together with the content and services can contribute significantly in bridging the digital divide and act as a key driver for sustainable economic growth.

**Q.** What steps should be taken to foster investments and growth in the telecommunications industry on a national and regional level?

**A.** Innovation, access, quality, and co-operation among all the stakeholders. These four factors, we believe, have a strong role to play in fostering investment and growth in the telecoms & ICT industry in today's world. The last factor is very important, as without working together industry stakeholders simply cannot achieve the desired results.

While, we have major responsibilities to be accountable for as a regulator, we are very proud to be working very closely with our all our market players and stakeholders of this industry. Each one of them is as important as the other in terms of their individual roles within our industry, and we always look forward to working closely together with each one of them to find new ways of fostering investment and growth of our industry.

**Q.** What is PTA doing to become an effective promoter of digital growth and how do you see your relationship with Pakistan's incumbent operator in terms of access and digital growth?

**A.** Pakistan Telecom Authority has defined for itself a very high standard of being an effective regulatory body, which is fully mindful of the futuristic needs of the industry. Unlike in many markets where, traditionally at least, you would see regulator prohibiting the use of new technologies, PTA has been very open and transparent in terms of its dealing with each

market player. Fortunately enough, most of our operators especially the incumbent operator has been very active in leading the introduction of new consumer-focused technologies, bringing more value-added services for the citizens of Pakistan, and has played an undeniably major role in building digital infrastructure in Pakistan. Such digital nation-building efforts simply cannot be ignored, and we are very mindful of these contributions made by our operator. I personally view such contributions as being the result of capable and mindful leadership of our incumbent operator, and would take every opportunity to thank the leadership for playing an immense role in Pakistan's high-speed communication development over the past several years. We are also closely working with international organizations and are receptive to new and innovative ideas.

**Q.** How do you think PTA Pakistan as a regulatory body and SAMENA Council as an industry representative body can work together to be of support to Pakistan's

thriving ICT industry and set new trends in private-public sector co-operation, regionally?

**A.** We already have a good level of co-operation between SAMENA Council and PTA. However, there is always room for improvement. PTA welcomes collaboration and transparent exchange of issues and needs. We are well aware of SAMENA Council's active involvement with regulatory bodies in the Middle East, and SAMENA Council's advocacy support network on an international scale. It is also a matter of pleasure for us that SAMENA Council's leadership is very well-known to us locally, and is approachable for us at a very close level for discussing both current and emerging industry matters.

The role of ICT industry in shaping our lives is fundamental and organizations like SAMENA Council can play a great role in this regard. We would be very open to discussing how effective public-private sector collaboration could be aided with SAMENA Council's facilitation. Perhaps, SAMENA Council's active members, including PTCL in Pakistan, can help to define a new, innovative public-private sector initiative that would attend to emerging cross-industry needs across Pakistan's economic sectors.





## SAMENA Region: Number of 3G Networks Per Country

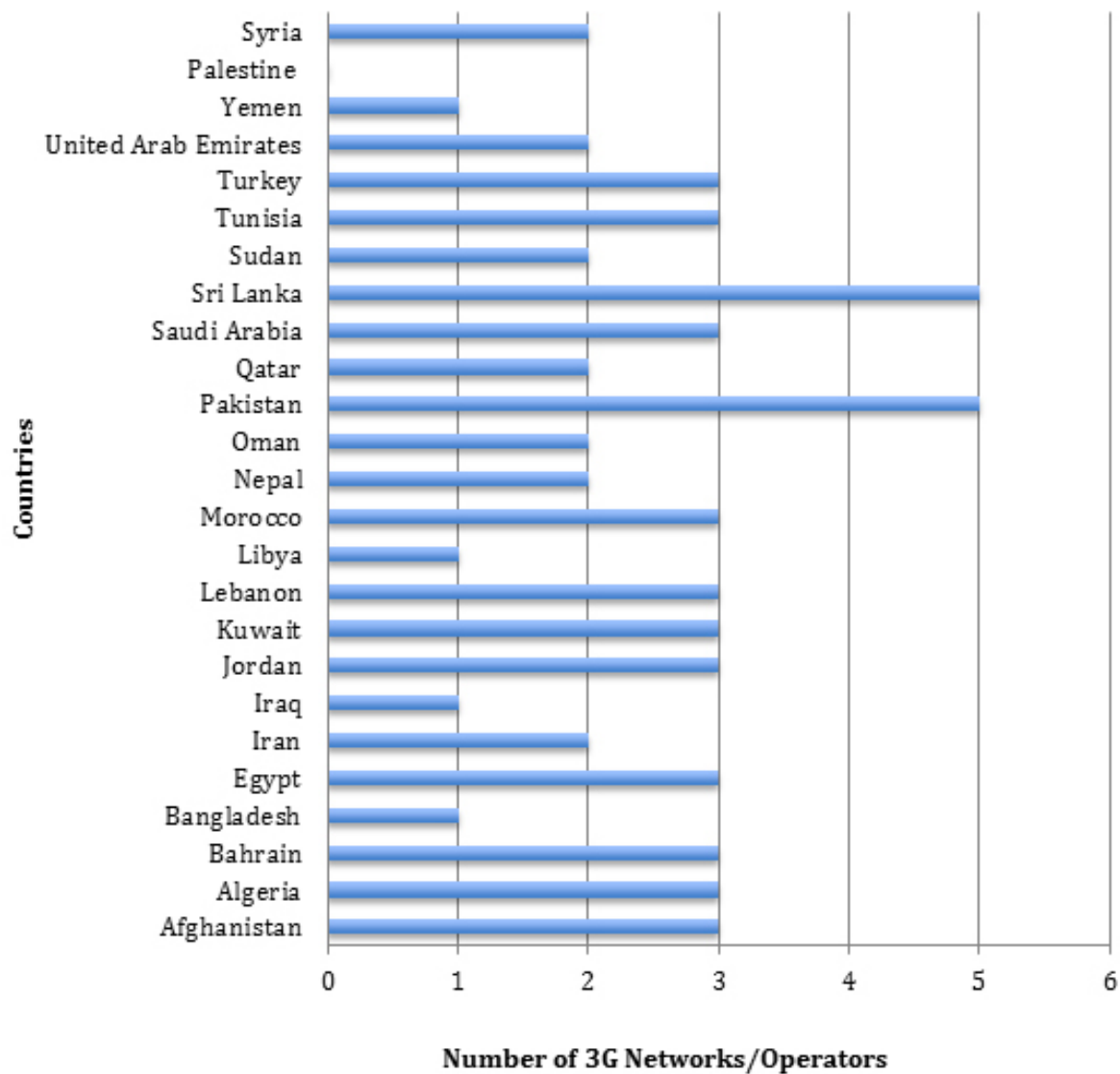


Image Source: SAMENA Telecommunications Council

### Region-wise 3G Networks

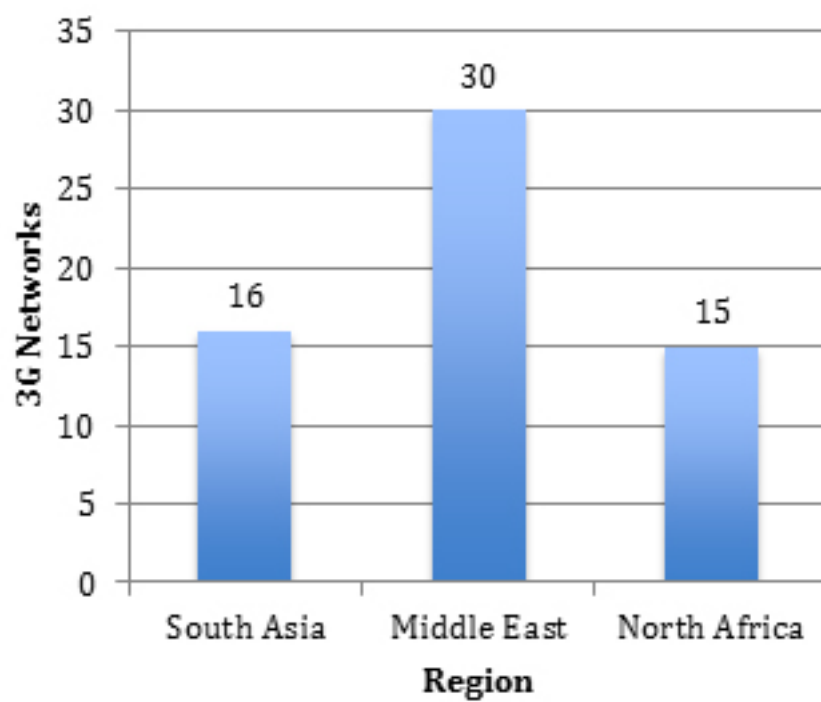
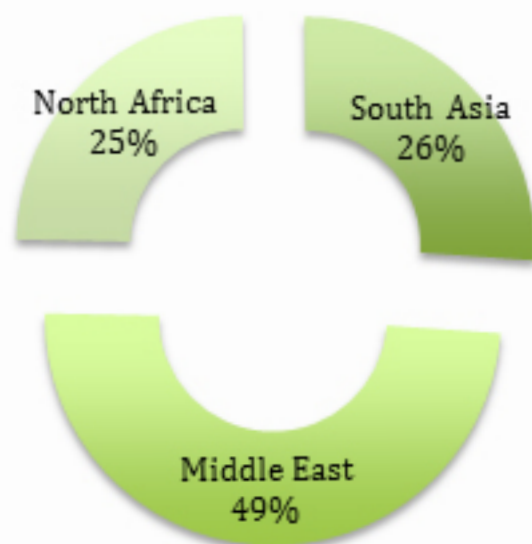


Image Source: SAMENA Telecommunications Council





## ▼ MEMBERS NEWS

### MEMBERS UPDATES

#### BlackBerry posts fourth-quarter profit; seeks to end revenue slide

BlackBerry Ltd posted a surprise quarterly profit on Friday and said it is pushing to end a slide in its revenue in this fiscal year, sending the stock up as much as 5.1 percent. "Our financial viability is no longer in question. We're now turning our attention to revenue stabilization," BlackBerry Chief Executive John Chen said on a conference call. Chen plans to grow BlackBerry's small but high-margin software division by moving more customers onto its products, including a system that allows companies and government agencies to manage multiple employee devices. The stock rose as high as \$9.77, before easing to \$9.59, up 3.1 percent on the Nasdaq, despite a much bigger-than-expected decline in fiscal fourth quarter revenue. BlackBerry investors cheered the unexpected quarterly profit and solid growth in revenue from software products, which includes the QNX operating system, used in everything from cars to reactors. Chen said while the average analyst estimate of a small per-share loss in the current quarter looks reasonable "we do intend to do better." "Chen and his team are one of the better management teams out there," said BGC Partners analyst Colin Gillis. "But they have a lot of selling and a lot of execution to do." BlackBerry reported net profit of

\$28 million, or 5 cents a share, in the fourth quarter ended February. 28. That compared with a year-earlier loss of \$148 million, or 28 cents a share. Excluding one-time items, quarterly profit was \$20 million, or 4 cents a share. Analysts, on average, looked for a loss of 4 cents a share. Revenue, however, slid to \$660 million from \$793 million, well below estimates of \$786.4 million. "BlackBerry continues to do a good job controlling operating expenses and eliminating its cash burn during its business transition, but the total revenue was still a big miss and we still have concerns about the demand side," said Morningstar analyst Brian Colello. Software revenue rose 20 percent from a year earlier to \$67 million. Analysts closely watch the metric, given the transition from its traditional hardware- and services-driven model. "It's an early good sign," said Colello. "They are looking for a more meaningful ramp in the middle of fiscal 2016, but certainly it's a good start." BlackBerry reported positive cash flow of \$76 million in the quarter, and its cash position rose to \$3.27 billion in the fourth quarter, from \$3.1 billion in the third quarter.

#### UK government says Huawei poses no security threat

Report concludes that Chinese vendor's security evaluation centre is independent and thorough enough to pass muster.



Huawei's network products and their use in the U.K.'s critical infrastructure do not jeopardize the country's national security, concluded a government report this week. To assuage concerns that the increasing use of its equipment by U.K. telcos posed a security risk, the Chinese vendor in 2010 opened the Huawei Cyber Security Evaluation Centre (HCSEC) in Banbury, Oxfordshire. The facility was tasked with ensuring that the company's kit could not be accessed by foreign agencies. To make sure HCSEC does what it was set up to do, the government appointed an oversight board that reports to the U.K.'s national security advisor, and on Wednesday it published the results of its first annual assessment of HCSEC's competence and independence.

"The oversight board concludes that in the year 2014-15 HCSEC fulfilled its obligations in respect of the provision of assurance that any risks to U.K. national security from Huawei's involvement in the U.K.'s critical networks have been sufficiently mitigated," the report said. Shenzhen-based Huawei has grown to become the world's second-largest telco vendor after Ericsson, and it has done so despite being prevented from selling network equipment to operators in the U.S. on national security grounds. Of particular concern is founder Ren Zhengfei's previous career in the People's Liberation Army. The company has also had to defend itself in the U.K. over government concerns about its role in critical national infrastructure (CNI). A cyber security report published in June 2013 heavily criticized incumbent BT for using Huawei's network products without first consulting ministers. Huawei hit back at the report, arguing that the work it carries out at HCSEC ensures its equipment is safe to use.

## PTCL landline service available on mobile phones

Pakistan Telecommunication Company Limited (PTCL), the largest ICT services provider in the country, now brings for the first time in Pakistan, mobility for landline customers' through its SmartLink application, says a press release. The application empowers PTCL customers to dial and receive landline calls through mobile phones on-the-go, anywhere and anytime. The internet based application

extends the crystal clear landline calling experience to mobile phones in a simple, smart way at the same affordable landline tariffs. Customers also get high quality and seamless video calling options regardless of location. The application, available at no subscription fee or monthly charges, comes equipped with various additional features including instant messaging, access to Smartphone's contact directory for calls and PIA flight schedule inquiry for on-the-go travelers. SmartLink also enables users to watch 150 PTCL SmartTV Channels. Adnan Shahid, Chief Commercial Officer (CCO) PTCL, said, "PTCL landline is the pioneer voice telephony service in Pakistan and we are proud to extend the same high-quality calling experience to our loyal users on mobile phones." "The SmartLink application is yet another first by PTCL and endorses our continuous efforts to bring innovative technology-led solutions to our customers", added Adnan Shahid.

## PCCW Global signs enhanced multi-service IPX/MPLS interconnection agreement with Qatar's Ooredoo

Fixed line incumbent Pakistan PCCW Global, the international operating division of HKT, Hong Kong's premier telecommunications service provider, and Ooredoo, Qatar's incumbent telecoms provider and one of the industry's largest multinational operators, have signed an IPX/MPLS multi-service interconnection agreement. PCCW Global customers all over the world can now enjoy multiple enhanced IPX (IP eXchange) and MPLS services when connecting with Qatar's thriving commercial service community on the northeastern coast of the Arabian Peninsula. The interconnect agreement also enables PCCW Global and Ooredoo to collaborate in the provisioning of services to carrier and multinational customers requiring services such as VoIPX, GRX, Diameter, HD calling, HD video conferencing, Ethernet, cloud and SDN. IPX provides a unified network platform for connecting IP services between mobile and fixed networks, while MPLS has become the de facto standard technology

used for the transport of these services. PCCW Global's networks span over five continents worldwide and customers in more than 3,000 cities and some 140 countries can connect to its IPX platform, which also provides multiple services such as video, voice and IT applications via a single interconnection point. Mr. Frederick Chui, PCCW Global's Senior Vice President of Global Data Sales and Presales, said, "Our IPX network can be directly accessed in 140 countries around the world without having to make use of the public Internet or long-distance connections. Extensive coverage, coupled with the diversified design of PCCW Global's private MPLS/IP network, ensures direct connection to our IPX voice platform and the highest quality services." Qatar is one of the world's economic hotspots, with an expected 2015 growth rate of 7.7%\*. Drivers include a combination of factors in addition to the hydrocarbon industry, such as heavy investment in major infrastructure projects. Mr. Navneet Singh, Ooredoo's Head of Global Capacity and Data Service, said, "We are very pleased to be entering into this multi-service interconnection agreement with PCCW Global, which is a respected global industry player. The main beneficiaries, of course, will be the customers served by Ooredoo and PCCW Global." The two companies are already collaborating as founder members of the Asia-Africa-Europe-1 (AAE-1) subsea cable system, scheduled for completion in 2016. Supporting PCCW Global's plans to deliver services into Africa and the Middle East, AAE-1 is one of the largest consortium cable projects under way in the world today, extending some 25,000kms.

## Google opening 'digital garage' to help businesses in Leeds

Google is opening a pop-up workshop in Leeds in a bid to help local businesses improve their digital skills. The Digital Garage project will see Google give advice on how companies can use the internet to reach more customers and grow faster. The six-month trial in Leeds will open on 30 March and include a digital "tune-up" service for small businesses. Aspiring entrepreneurs are also encouraged to attend events organised by local partners and book one-to-one mentoring sessions on digital business skills. As part of the project Google



is investing in computer science and coding training for around 25,000 teachers. Working in partnership with Code Club Pro, Computing at Schools and Raspberry Pi, it will run workshops and events for teachers in local schools alongside online training resources. Raspberry Pi computers will also be donated to local schools. [wired.co.uk](http://wired.co.uk)

## Cisco, Microsoft to Enable Providers to Offer Cloud Services

Microsoft and Cisco have teamed up to create a new product package that enables telecoms and other service providers to offer Azure-like cloud services. While Microsoft will bring its cloud infrastructure product—Windows Azure Pack—to the table, Cisco will contribute its networking

in enabling wholesale moves, but rather providing something more than just an Infrastructure-as-a-Service, or complementary cloud options to more traditional enterprise managed infrastructure. They're now equipped to help service providers create combined IaaS, Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS) solutions that deliver more value to their customers. "We want our service provider partners to move up-market with us and offer higher-end cloud services," Nick Earle, senior vice president for Cisco's Cloud and Managed Services, said in a press release. "By partnering with Microsoft we're able to deliver a tightly integrated, application centric cloud architecture. This unique new platform will help our partners dramatically accelerate the

delivery of new and innovative hybrid cloud services for their customers." Mutual partner Concerto Cloud Services is one of the first to benefit from the "The Cisco Cloud Architecture built with the Microsoft Cloud platform." Concerto used the duo to create a hybrid cloud featuring seamless integration between its virtual private cloud and Microsoft Azure, according

to a statement by Greg Pierce, vice president of Concerto Cloud Services. The collaboration will also deliver pre-packaged policy management libraries that allow cloud providers to implement applications more quickly with consistent policy management. In addition, Microsoft System Center 2012 R2 is integrated with the Cisco Unified Computing System. It will complement Cisco's OpenStack-based architectures for cloud-native workloads and provide seamless hybrid cloud capability for connecting to Intercloud and Azure. Cisco plans to publish the first reference architecture in April 2015. Close to 15 new cloud providers announced plans to join Cisco's Intercloud partner ecosystem, bringing the number of providers to more than 60 with a footprint of 350-plus data centers across 50 countries. The partnership is somewhat akin to the recent Google-VMware partnership. Arguably competitors in some respects, the two joined forces to tackle hybrid cloud needs with Google providing the public cloud resources to

VMware-heavy enterprises looking to leverage public cloud. The difference is the extension of the Cisco-Microsoft partnership is aimed toward the channel. [datacenterknowledge.com](http://datacenterknowledge.com)

## SLA Mobile announced as one of Ireland's Best Managed Companies!

SLA Mobile has been named as one of Ireland's 'Best Managed' companies in the Deloitte Best Managed Companies Awards Program. The company, which demonstrated superior business performance for the fifth year running, was recognized at an awards gala dinner in Dublin on 6 March 2015. The awards, held in association with Barclays Bank Ireland, were attended by over 800 from the Irish business community. Minister for Jobs, Enterprise and Innovation, Richard Bruton, TD, gave a keynote address at the awards gala. The Deloitte Best Managed Companies Awards Program, in association with Barclays Bank Ireland, recognizes indigenous Irish companies across Ireland which are operating at the highest levels of business performance. Commenting on the award, Nic Stirk, CEO of SLA Mobile said, "We are delighted to be recognized as one of Ireland's Best Managed Companies for the fifth consecutive year. Our success has been driven by the dedication and performance of the team here at SLA Mobile. We have experienced great success over the past few years and the Deloitte Best Managed Companies award reinforces our achievements to date." Former CEO of Enterprise Ireland, Frank Ryan, chaired the independent judging panel that took a holistic approach to measuring company performance, looking at strategy, capability, commitment, and management performance, in addition to financials. The Best Managed Companies Awards Program is the only awards program that considers a business' performance from every perspective.

Commenting on this year's program, Managing Partner of Deloitte and judging panel member, Brendan Jennings, said: "Our congratulations to all those companies celebrating their Best Managed status. Whether receiving this accolade for the first or the seventh time, it is no mean feat, and it reflects a high level of commitment and capability. In working closely with these companies



devices and servers. Together, they will form one of the most comprehensive cloud partnerships around. "For cloud infrastructure there is very little overlap in terms of product coverage, so there ought to be few boundary issues to get in the way," Synergy Research Chief Analyst John Dinsdale said via email. "Microsoft has strong cloud infrastructure service offerings and totally dominates the OS space. Cisco is an across-the-board leader in networking and has the technology smarts, and between them they have a lot of the software pieces in place." Although the two companies compete in collaboration and online communication services, they've managed to find common ground in the cloud. This is not the first time they have partnered. Microsoft and Cisco also teamed up last year in a bid for enterprise business. Both companies are now in good position to help service providers enable their customers to evolve to a hybrid cloud. Service providers leveraging the duo aren't necessarily interested





for the best part of a year, it's clear to see why they are being recognized as Best Managed. It is a defined strategy, clearly communicated and executed; a belief in innovation in products and practices as a cornerstone of growth; a recognition of the importance of R&D spend; and an intuitive understanding of their marketplace."

## VIVA Bahrain & Huawei to Cooperate on Enterprise Services and Customer Experience



VIVA Bahrain, Bahrain's most innovative operator and Huawei, a leading global ICT solutions provider, have announced plans to cooperate in further developing VIVA's offerings to enterprise customers as well as the operator's overall customer experience management systems. A memorandum was signed between the two companies at the Mobile World Congress recently held in Barcelona, Spain. The memorandum comes as VIVA continues to expand its mobile network coverage in Bahrain and advanced high-speed LTE services for the public. The agreement will see VIVA and Huawei leverage those investments to serve a growing base of enterprise customers within diverse industries along with Small & Medium Enterprises (SMEs). In particular, VIVA will be able to benefit from Huawei innovations in enterprise LTE services, mobile device management solutions, enterprise connectivity solutions, and unified communication devices. Eng. Ulaiyan Al Wetaid, CEO of VIVA Bahrain, said: "Earlier this year, we were recognized by the Telecommunications Regulatory Authority (TRA) in Bahrain as the country's widest 4G network coverage and ranked top on Quality of Service. The agreement with Huawei

adds to our commitment to continue investing in infrastructure to meet our customers' needs for cutting-edge services and the best customer experience. Huawei's expertise in this domain will enable us to provide our growing enterprise customers with even more innovative and reliable services and solutions". "The ICT industry is innovating rapidly. Telecom operators are focusing more and more on customer experience, while also being able to give businesses new tools through which to strengthen their information analysis capabilities and enhance organizational collaboration. This latest memorandum with help VIVA Bahrain to leverage these opportunities and launch new services into the marketplace even better and faster way," says Feng Nan, CEO of Huawei Bahrain. Additionally, the memorandum will also see VIVA and Huawei cooperate in enhancing VIVA's customer experience and customer care platforms. This will include reviewing service quality-management metrics, planning for service-oriented operation centers, proactive VIP care models, and the management of tailored tariff plans and services.

## STC is a Platinum Sponsor of the "Capacity Middle East 2015" Conference

STC is proud to be a platinum sponsor of "Capacity Middle East 2015", held in Dubai, UAE between the 10th and the 12th of March. The conference is the most important ICT event in the region addressing the regional market with a particular emphasis on the international capacities outlook. An environment where senior decision makers from the telecom sector can meet their counterparts within a bilateral context and tackle topics that effect the business of telecoms in a real way. Regional and international participants have the opportunity to exhibit their businesses and present their products and solutions for instance, on issues related to international telephony, interconnection, data and capacity

## Telstra extends network reach across Middle East with Etisalat SmartHub

Telstra today announced the launch of a new point of presence (PoP) in the United Arab Emirates, in a technology partnership with Etisalat, a pioneer company in next generation networks technology in the Middle East. Announced at Capacity Middle East in Dubai, the region's leading annual wholesale conference, the new PoP will be housed in Etisalat's UAE SmartHub facility and will enable Telstra customers to benefit from reduced latency and increased network availability across the Middle East. Bernadette Noujaim Baldwin, Telstra's Head of Connectivity & Platforms Portfolio, Global Enterprise & Services, said the company was committed to expanding its network footprint across key regions and into new markets that are of high value to its customers. "The Middle East is an emerging economic and technological powerhouse, with IDC predicting almost double digit year on year growth in IT expenditure, which is expected to hit more than \$270 billion in 2015 alone1. "In light of these economic conditions, it is drawing in businesses that require a stable local network with international reach. It's critical these organizations have access to integrated, robust and seamless connectivity options and we are pleased to extend our network into this region to address such demands. "Additionally, the new PoP enables Telstra to take advantage of the Bay of Bengal Gateway (BBG) cable, which will enter service later this year and become one of the fastest routes from the Middle East to East and South-East Asia," Ms. Noujaim Baldwin said. Ali Amiri, Executive Vice President Carrier & Wholesale Services, Etisalat said: "We are delighted to welcome Telstra, Etisalat's long term technology partner, to the SmartHub and we look forward to continued cooperation with them. "Thanks to the robust capabilities of Etisalat's SmartHub, global operators such as Telstra have recognized the value of collaborating with Etisalat to deliver the network quality and seamless services that only our combined international and regional strengths can offer. "We are pleased to be working in partnership with Telstra to deliver new opportunities and connections across the Middle East and around the world," Mr. Amiri concluded.





## UAE-IX Doubles Peak Traffic

UAE-IX was the first international project of DE-CIX, and the exchange continues to grow. In February, UAE-IX reached a new traffic peak: 30.77 Gigabits per second. The yearly traffic graph above shows that this peak is based on steady growth within the last year. In 2014, UAE-IX had a growth rate of more than 30 percent, and since Capacity Middle East in March 2014, traffic at UAE-IX has doubled from 15 Gigabits/s to more than 30 Gigabits/s peak traffic now.

## CIENA joins SAMENA Telecommunications Council

SAMENA Telecommunications Council has announced that Ciena® (NYSE: CIEN), the network specialist, has joined its membership, becoming the latest global technology provider to come on board the SAMENA Council platform, comprising top telecoms operator groups, leading technology providers, and specialized consulting firms. "Ciena is a major technology player in the telecommunications networking domain, and we specially recognize Ciena's role as a key enabler in the submarine communication industry. This decision to join SAMENA Council will help create mutual value for Ciena and our members. SAMENA Council will actively work throughout this year to focus on the needs and issues of the submarine communications industry, and we look forward to actively supporting Ciena and other valued members, which are integral to the regional and international submarine communications industry, in achieving our agenda-setting goals to support the submarine cable industry," said Mr. Bocar BA, CEO of SAMENA Council. "As a SAMENA member, Ciena can look forward to every opportunity to network with peers, broaden business horizons on a mutual basis, and take leadership role in line with SAMENA Council's organizational priorities," he added. Mr. Benoit de la Tour, Vice President and General Manager, EMEA, at Ciena, said, "SAMENA provides a valuable platform for telecom industry stakeholders to connect with each other and contribute to future developments in our industry. As we move towards an increasingly on-demand world, it is important

that submarine networks become agile innovation enablers. New technologies such as software defined networking (SDN), alongside resilient and scalable mesh infrastructures, make this possible. We appreciate the opportunity to join SAMENA and contribute to the discussion on critical industry issues and challenges that are important to Ciena, its business partners, and its clients." A leading global supplier of telecommunications networking equipment, software and services, operating in the Middle East, Ciena collaborates with clients around the region to unlock the strategic potential of networks, and to fundamentally change the way they perform and compete.

## EUTELSAT 8 West B satellite in final stretch of manufacturing

The EUTELSAT 8 West B satellite of Eutelsat Communications is in the final stretch of manufacturing and on track for launch by an Ariane 5 rocket in mid-2015. The 5.8 tone satellite has finished launch environment tests and is now going through a final round of payload performance checks at Thales Alenia Space's factory in Cannes. EUTELSAT 8 West 8 will be launched to the 7/8° West neighborhood selected by over 1,000 TV channels to reach into an unmatched audience of 52 million homes. Eutelsat and Nilesat have progressively built a comprehensive broadcast infrastructure at this position, comprising satellites designed for Direct-to-Home reception in a vast



footprint stretching from Morocco to the Gulf. Both operators have steadily brought new capacity on line to meet thriving demand for digital channels and the acceleration of High Definition Television. The next phase of expansion at the most popular neighborhood in the Middle East and North Africa comes with EUTELSAT 8 West B. In addition to delivering increased Ku-band capacity for the MENA region

and a pan-African payload in C-band, EUTELSAT 8 West B will host a new generation of advanced functions that will raise the bar of performance, flexibility and signal security. The new functions are focused on delivering three main benefits: Mitigating the effects of interference by increasing control over uplink frequencies to a satellite; Increasing the number of active channels by optimizing a satellite payload's use of the electrical power generated by its solar panels; Expanding options for repositioning satellites with frequency agile command receivers.

## Vodafone to offer one of the highest maternity benefits in Qatar

Vodafone announced today that it will become one of the first organizations in the world to introduce a mandatory minimum global maternity policy. By the end of 2015, women working at all levels across Vodafone's 30 operating companies in Africa, the Middle East, the Asia-Pacific region, Europe and the US will be offered at least 16 weeks fully paid maternity leave, as well as full pay for a 30-hour week for the first six months after their return to work. Other than the United Nations, very few global organizations - and even fewer multinational corporations - have adopted minimum maternity policies of this kind. While a number of Vodafone subsidiaries already offer substantial maternity care terms which will continue as before, the new mandatory minimum global maternity policy will make a significant difference to the lives of thousands of Vodafone women employees in countries where there is little or no legislative requirement to provide maternity support. For Vodafone Qatar, this means its female employees starting maternity leave from now on or those already on maternity leave will benefit from one extra month (total of 112 calendar days) of paid maternity leave. Vodafone provides one of the highest maternity benefits in Qatar where the standard in the market is 50 calendar days off. The news, timed with International Women's Day 2015, was celebrated by Vodafone Qatar's female employees and their children who were invited to spend a few hours with their mothers at the Company's headquarters. The announcement was made by Dalya Al Khalaf Vodafone Qatar's Director of Strategy and Anita

Tomany Head of Talent, Capability and Resourcing, as part of a whole week dedicated to Women from 8-15 March 2015 that will include competitions plus learning and networking activities. Vodafone also announced today the outcome of analysis commissioned from KPMG\* which indicates that global businesses could save up to an estimated \$19 billion annually through the provision of 16 weeks of fully paid maternity leave.

KPMG estimated that:

- recruiting and training new employees to replace women who do not stay in the workforce after having a baby costs global businesses \$47 billion every year;
- offering women 16 weeks of fully paid maternity leave rather than the statutory minimum would cost businesses an additional \$28 billion a year; and
- if businesses were able to retain more women in the workforce after their maternity leave, they could save up to \$19 billion a year and would retain the knowledge and experience of these women with positive consequences for productivity and effectiveness.
- Additionally, KPMG estimated that:
- offering mothers a global return-to-work policy equivalent to a four-day week at full pay for their first six months back to work after maternity leave could save working mothers a cumulative \$14 billion in childcare for their new babies; and
- globally a four-day week would enable mothers to spend a cumulative 608 million additional days with their newborn babies. In Qatar, a four-day week would enable mothers to spend a cumulative 80,300 additional days with their newborn babies.

Vodafone Group Chief Executive Vittorio Colao, said: "Too many talented women leave working life because they face a difficult choice between either caring for a newborn baby or maintaining their careers. Our new mandatory minimum global maternity policy will support over 1,000 Vodafone women employees every year in countries with little or no statutory maternity care. "Women account for 35% of our employees worldwide but only 21% of our international senior leadership team. We believe our new maternity policy will play an important role in helping to bridge that gap. Supporting

working mothers at all levels of our organization will ultimately result in better decisions, a better culture and a deeper understanding of our customers' needs." Vodafone Qatar CEO Kyle Whitehill, said: "Building a diverse and inclusive culture is one of the key priorities for our company with a specific focus on gender diversity. 28% of Vodafone Qatar's employee base is made up of women; we want to retain and grow this number so have been determined to instill a culture in our company that supports, develops and rewards our female employees with the same and equal benefits that their male counterparts receive."

## PCCW Global expands into Benin

PCCW Global, the international operating division of HKT, Hong Kong's premier telecommunications service provider, has entered into a new interconnection agreement that will benefit its customers and enterprises of Benin and neighboring Burkina Faso in Africa. The African Economic Outlook predicts Benin's real GDP will increase to 5.3% this year and the country's developing private sector will be essential to the nation's integration into global value chains. The Network-to-Network Interface (NNI) agreement signed between PCCW Global and Benin's Isocel Telecom will boost business development and support the growth of the country. The agreement will also open up cross border connectivity with neighboring Burkina Faso, where Isocel Telecom collaborates with a leading data carrier. Burkina Faso's real GDP growth is projected to be 6.3%\* in 2015, with agriculture and mining seen as the main growth generators. Interconnecting with PCCW Global's MPLS network provides connected operators and service providers with the ability to deliver multiple services over a single connection with full quality and class of service support. The PCCW Global network spans five continents and reaches deep into emerging markets, enabling easy and seamless access to 3,000 cities in 140 countries, providing an efficient way of optimizing the delivery of video, voice and IT applications. Mr. James Welch, PCCW Global's Vice President and Head of Sales, EEMEA, said, "This move adds further weight to PCCW Global's reputation for pioneering African connectivity. We operate one of Africa's most advanced regional

and international networks, and we are very honored that we are today able to announce that Benin and Burkina Faso have joined our global community of connected countries, and that customers in these countries, and our many customers around the world who want and need high quality access into these high growth countries, will now be able to reap the benefits associated with connectivity to PCCW Global's technology-neutral MPLS network." The NNI agreement with Isocel Telecom also enables the provision of Ethernet and IP VPN services in Benin and neighboring countries. Mr. Joey Esquibal, Isocel Telecom's Chief Information Officer, said, "We are delighted to be working with a global carrier that has such a strong track record for facilitating pan-African and international connectivity and trade. I am confident that many of our business customers will be quick to take advantage of the new MPLS, Ethernet and IP VPN additions to the Isocel portfolio which this NNI agreement with PCCW Global will facilitate. This is a very exciting day for us and our customers." PCCW Global serves the voice, video, data, Internet, MPLS and interconnection requirements of service providers and enterprises across more than 45 African countries, and in doing so PCCW Global also continues to expand access to the growing number of submarine and terrestrial optical fiber cables running into and around the continent.

## Etisalat and Huawei develop a new collaboration Framework for M2M and Internet of Things communications

Etisalat Group - a leading telecoms and ICT solutions provider in the Middle East, Asia and Africa - and Huawei - a leading global ICT solutions provider - have announced plans for a joint new research and development framework exploring how new machine-to-machine (M2M) communications and innovative Internet of things (IoT) can be adopted in various industries to enhance business efficiency and lead to more innovative services. The joint research and development program will allow the two companies to harness the potential of M2M communications across industries. Etisalat Group and Huawei will explore how enhanced



connected M2M communications can be applied to provide better services to Business customers and, in turn, deliver a framework for future growth. Khalifa Al Shamsi, Chief Digital Services Officer, Etisalat Group said: "The framework we have agreed underscores Etisalat continuous desire to be an industry leader in trialing and commercially launching new and innovative M2M and IoT connected services within the Middle East, Africa and Asia. Developing such service innovations will be fundamental to enhance Government and business efficiency and a tool for enriching peoples' lives in the region, and will also open up exciting, new business opportunities within Etisalat Group's business portfolio." IoT and M2M communications refer to ICT applications and technologies that allow devices to communicate directly with other systems and devices over wireless and wired networks. IoT/M2M solutions are increasingly used by organizations around the globe to improve productivity (through real-time operational measurements and smart controls), reduce costs, improve the current services and open new revenue streams. Today there are many vertical industries—from transportation to logistics, utilities, finance, smart cities and healthcare—which have already benefitted immensely from integrating IoT/M2M services into their business. "Today's Internet of Things phenomena will make intelligent sensing widely available through machine-to-machine information sharing and collaboration. Forward thinking operators are taking a more direct role in this value chain, and this latest memorandum between Huawei and Etisalat underscores our shared commitment to contributing to the maturity of this sector," said Alan Wang, President of Huawei Etisalat Global Key Account. The joint cooperation plan follows a series of recent partnerships between Etisalat Group and Huawei to bring a number of technology firsts to the region. This has included a joint effort to explore and deploy super-speed 5G mobile broadband services in the region, as well as ultra-fast 400Gbps fiber technology aimed at offering more reliable and affordable broadband services to homes and businesses.

## Ooredoo reaches 100m customers; focuses on B2B growth

Qatar-based telecoms group Ooredoo has announced that its customer base exceeded 100 million across its footprint in the Middle East, North Africa (MENA) and Southeast Asia by the end of 2014, up from a consolidated global customer base of more than 95 million at end-December 2013. 2014 saw the company grow its largely-cellular user base in key markets like Qatar, Algeria and Oman, as well as launch operations in Myanmar, with achievements including reaching more than 3.5 million 3G customers in Algeria within one year of the launch of 3G services. Ooredoo operates in markets with an addressable population of more than 700 million people, and sees strong potential for growth across its footprint. Ooredoo has also announced that it is looking to accelerate growth across its business-to-business (B2B) customer base in the MENA and Southeast Asian regions. The company already has a strong presence in the B2B market, generating more than USD1 billion revenue from B2B services in 2014, with nine-month year-on-year growth up 10% and B2B customers up 25%, but with an estimated nine million companies present in its core markets of Algeria, Tunisia, Iraq, Kuwait, Qatar, Indonesia, Oman and Myanmar. Ooredoo is looking to build upon its position and fully realize its opportunities. It is seeking to tap the estimated USD10 billion B2B market within its footprint with an enhanced strategy which it unveiled at Mobile World Congress in Barcelona. Ooredoo has assembled a dedicated team of more than 1,100 business service professionals as part of its Ooredoo Business unit, aiming to enhance the company's corporate focus across its primary markets. Ooredoo has also established a Sales Academy where more than 600 sales team members are being trained in best-in-class sales techniques for business services. Ooredoo offers a broad portfolio of solutions, including connectivity, convergence and cloud services, and is applying its expertise to new areas, such as machine-to-machine (M2M) communications. One of Ooredoo Business' first major launches is a pan-regional cloud-based M2M platform with Ericsson, which enables companies to implement vertical Internet of Things

(IoT) solutions quickly and more easily. With a 'build once, deploy many' approach and by adopting a cloud-first principle for all of its product management, Ooredoo has cut time to market by 75% and radically reduced its costs to deliver these solutions, its press release claimed. Ooredoo also continues to develop Smart City technologies, recognizing the growing demand for such services across its global footprint. More than ten major cities within Ooredoo footprint are classified as 'mega-cities' hosting a population of more than ten million, and more are set to join them in the coming years, as rural populations move into the bigger urban areas.

## Etisalat extends roaming coverage for Business Traveler Packs by 60% covers 105 countries across 248 operators

Etisalat's business customers can now enjoy wider data connectivity globally as the telco giant extends its network for Business Traveler Packs to 248 operators across 105 countries with no additional cost. Etisalat's Business Traveler Packs, the widest, most competitive data-roaming proposition for business customers in the UAE, allow users the flexibility to choose from 30-day one-off packs to monthly recurring packs. Moreover, it offers business customers the feature to track international data usage during their travel by automatic notifications for better control over roaming spends, assuring worry-free roaming experience. Salvador Anglada Chief Business Officer, Etisalat, said, "As the UAE's local businesses expand their global reach, the frequency of their international travel accelerates. We are keen to help their businesses growth and ensure that executives stay well connected both, locally and overseas. We have expanded our data-roaming network coverage by more than 60 percent at no extra cost to our customers. This means there are many more countries and networks where our customers can surf the web, check emails, use maps and more on their travels, without worrying about bill shocks." Etisalat's Business Traveler Packs aim to meet the staggering pace of data usage by the UAE's business segment. Increasing adoption of the Bring





Your Own Device (BYOD) operational environment by enterprises and the continuing flux in movement across mobile platforms continues to cause tectonic shifts in usage behavior. While compressed data environment is giving way to an explosion in data capacity requirements, corporate clients continue to desire the choicest communications services. John Lincoln, Senior Vice President – Small and Medium Businesses, Etisalat, added, "There are many small and medium sized businesses (SMB) based in UAE that conduct extensive business abroad. This requires SMB customers to have reliable and best in class data roaming services. The structured Business Traveler pack proposition offers value for money, transparency and predictability of cost and convenience for SMBs. This enhanced proposition has an extended coverage in 105 countries across 248 network operators at no extra cost. It is another way of how we help SMBs grow their businesses." Business Traveler packs aim to meet the demanding pace of data usage by the UAE's business segment, to address this need, usage-specific access and high data allowances are built into Etisalat's data roaming packs. The options include email-only and email-plus-social-media packs, in addition to Internet access for browsing and downloading. Customers need to choose any of the international data monthly bundles to have full control of their business communications and to connect to the world beyond business. The affordable packs range from AED60 for 100MB to AED 1500 for 10 GB, with flexible price points of AED200 for 500MB and AED100 for 200MB.

## Mobily unveils Cloud Business Intelligence to SMEs

Etihad Etisalat, Mobily, has recently launched Cloud Business Intelligence in collaboration with Arabian Business Intelligence Solutions company (ABIS). The announcement was made during an event held at Kempinski Hotel, Riyadh, and in the presence of a number of esteemed businessmen and entrepreneurs. Cloud Business Intelligence, just one of wide range of services Mobily provides to the business sector, allows SMEs to obtain advanced reports and provides a comprehensive information dashboard. It also integrates different

departments' information to provide a thorough analysis, in addition to key indexes to support executives make quick and accurate decisions. Mobily has a strong track-record of developing and launching Business Intelligence services in the Saudi Market, integrating them with the current computing infrastructure for further reliability and flexibility. "We are pleased to announce this partnership with ABIS, and we also endeavor to enhance the business sector by providing world class services" says Ismail AlGhamdi, Mobily's acting Chief Business Officer. He added: "Mobily has a strong cloud computing infrastructure that helps to provide the business sector with state-of-the-art services. We are eager to meet the increasing demand for companies to make the transition to cloud computing instead of conventional computing. This will enhance Mobily's own business operations and market share." Engineer Fahad Al-Gumaia, General Manager of (ABIS), expressed his pleasure with the latest partnership with Mobily, as it continues to provide distinguished services to the Saudi business sector and SMEs. In addition, Mobily has recently launched a number of reliable cloud computing services, in conjunction with specialized partners, to reduce the cost of both hardware and software in management expenses. Furthermore, there is an extended cooperation between the two companies as AIBS is one of the first businesses to have joined Mobily's pioneering program for cloud computing (MCP).

## Cisco offers carriers adware-as-a-service for fun and profit

Cisco has clouded up a new way to snoop on mobile users "combine network, user, and business intelligence ... to realize business outcomes." Announced at Mobile World Congress, Mobility IQ is a SaaS offering that the company says provides real-time information on Wi-Fi, 3G and LTE networks, covering network performance and user behavior. The network management slice, Cisco Network Intelligence, provides a visual window of network operations, combined with APIs to push responses back into the network. The second slice, Cisco User Intelligence, is designed to make the march of advertising even more relentless, or as this Cisco blog

explains, provide "holistic insights into indoor and outdoor mobile user behaviors, such as location paths and social media activity". On the business side, there's also managed services designed for verticals like hospitality, retail, or venue managers. Cisco Business Intelligence provides the pane of glass to the business user. There will also be partner APIs, Cisco says, to "simplify the creation of value partnerships" (really, who writes this stuff?) for advertising and "social discovery" – Vulture South presumes this last one means if you send a Twitter pic while you're shopping, someone will want to work out how to push an advertisement or special offer at you. For carriers that want to bring the Minority Report advertising experience that one step closer, Mobility IQ is available as a pre-paid subscription service.

## STC Reaffirms Its Leadership at the Mobile World Congress 2015

Saudi Telecom Company (STC) Group has demonstrated its international leadership at the Mobile World Congress (MWC) in Barcelona, Spain. On the first day of the event the telecom giant revealed some of its regional and international expansion plans, which complement its extensive experience in providing communication and data services, in addition to managed services for businesses worldwide. STC shared its expertise with MWC attendees, which include over 2000 telecommunication leaders, senior executives, service providers, and company representatives from 140 countries. The company offered a situational overview of the Saudi Arabian telecommunication sector while highlighting its role in pioneering the latest in industry developments. Participants had the opportunity to learn about STC's international presence, its exhaustive international communication and data transfer services, as well as its considerable broadband capacity which is backed by the most extensive fiber optic network in the Middle East. The Group held multiple meetings with leading telecom operators to discuss common interests and sign technical and commercial agreements. The Congress has enabled STC to reaffirm its status as the largest telecom operator in the Middle East and North Africa, providing cutting-edge products with exhaustive services to over 100 million customers across the globe.





## ▼ REGIONAL NEWS

### REGIONAL UPDATES

#### Legislation to localize YouTube content under way, NA told

The National Assembly was informed on Friday that legislation to 'localize' YouTube in Pakistan is under way, which will keep a check on blasphemous material and avoid future resentment against the website. Minister of State for Information Technology Ms. Anousha Rehman told the lower house during a question hour session that a draft bill has been tabled in the National Assembly's Standing Committee on IT and once it is passed by Parliament, the government will pursue Google to give Pakistan rights to locally manage the website. "Presently, these websites are operating under the American law and do not fall in the ambit of Pakistani laws. Therefore, it is necessary to bring them under Pakistani law in order to avoid posting on them objectionable material," Rehman said. She said in some other Muslim countries, YouTube is still banned and in those where it is operating, it has been done after proper legislation and localization. Earlier, Parliamentary secretary cabinet division Raja Javed Akhlaq informed the National Assembly that the government is also proceeding for legislation in light of the apex court's decision regarding YouTube. "These websites hurt emotions of Muslims across the world and in Pakistan as well. Therefore, proper legislation in light of the court's decision was required

before opening them," Akhlaq said, in response to questions by MNAs Shazia Marri and Shamsun Nisa. He rejected the impression that the government did not want to open up this website and assured that it would be done after proper legislation. "It may be demand from the international community or some NGO's campaign to get YouTube opened so it could again hurt feelings of Muslims." He said as there was no technical solution available to control objectionable material on YouTube; therefore, in compliance of the court orders, it was completely blocked. Moreover, Google had removed the movie Innocence of Muslims following a US court order but smaller versions of it are still available. In this situation, the parliamentary secretary said an Intermediary Liability Protection was required to be added in the law as has been done in other countries.

#### Payments giant Visa to open innovation centre in Dubai

Visa, the global electronic payments firm, has announced that it will invest in an innovation centre in Dubai following a two-day visit to the UAE by its chief executive. Dubai is Visa's regional headquarters for Central and Eastern Europe, Middle East and Africa (CEMEA) and the new centre will provide Visa, its clients, and partners across the region with a centre to jointly develop the next generation of payments technology, a



statement said. The initiative will also help Dubai achieve its Smart City objectives, the company said without giving the value for the investment. The announcement was made at the end of a two-day trip to the region by Visa's CEO Charles Scharf who met industry representatives and UAE government officials. "Visa is a long term investor in Dubai and the UAE. With this innovation centre announcement we are reinforcing the importance of this region to our business," said Kamran Siddiqi, group executive, Visa CEMEA. "We want to create a space where banks, mobile network operators, tech firms and others can come together with Visa and collaborate to create new products and services that accelerate the adoption of electronic payments. The UAE was selected recently by Visa as one of 16 countries where consumers will soon be able to use VisaCheckout, a quick and easy payment service to pay for goods online, on any device, in just a few clicks. Siddiqi added: "Our vision to remain the best way to pay and be paid - for everyone, everywhere, requires a commitment to collaborate and foster innovation. This will help accelerate the efforts to make Dubai and the UAE the first cashless Arab society by Expo 2020."

## iWireless to launch LTE in 2H15 via T-Mobile roaming

Iowa-based mobile service provider iWireless has announced plans to invest over USD35 million in upgrading its 2G and 3G networks, and launching Long Term Evolution (LTE) services in the second half of 2015. The operator will roll out LTE in the cities of Des Moines, Cedar Rapids, Iowa City, Cedar Falls, Waterloo, Marshalltown, Muscatine, and the 'Quad Cities' (Davenport, Bettendorf, Moline and Rock Island) via a roaming deal with parent company T-Mobile US. CEO Craven Shumaker commented: 'It's an exciting time for iWireless, and we are pleased to bring LTE technology to our customers both urban and rural.' Earlier this month, TeleGeography's CommsUpdate reported that Nokia Networks had been awarded a technology evolution contract by iWireless under which Nokia is modernising the operator's existing networks and deploying its end-to-end LTE infrastructure. Headquartered in Urbandale, Iowa, iWireless is a partnership between mobile giant T-Mobile US and Iowa

Network Services (INS). The latter is privately owned by a group of 127 independent telephone companies that together serve 500,000 rural Iowans.

## Sri Lanka lags far behind neighbors in innovation and technological adoption

Despite that innovation is becoming an important policy agenda for Sri Lanka, the country lags far behind its South Asian neighbors in innovation and technological adoption, a recently released report of the Asia Development Bank (ADB) said. The Global Competitiveness Index of the World Economic Forum ranks Sri Lanka behind other countries in university-industry collaboration in research and development (R&D), Patent Cooperation Treaty patents and applications, corporate R&D spending, and the quality of science research institutions. Sri Lanka's spending on R&D equaled 0.16% of GDP in 2010 which is low even compared with its South Asian neighbors, with India at 0.81% in 2011, Pakistan at 0.33% in 2011, and Nepal at 0.30% in 2010, the Asian Development Bank's flagship annual economic publication, Asian Development Outlook 2015 (ADO), released Tuesday noted. Sri Lanka's component of high-tech products in total manufactured exports was 0.9% in 2012, far below the 6.2% average for South Asia, 8.4% for lower-middle-income economies, and 20.6% for upper-middle-income countries. The Asian lender pointed out the need to encourage the private investment in R&D by removing institutional and regulatory bottlenecks and improving infrastructure, including those pertaining to information and communication technology. "The environment for innovation could be improved by establishing proof-of-concept labs and patent-application grants, innovation voucher schemes and incentives for collaboration between firms and universities, and investment in knowledge-based capital supported by copyrights, trademarks, and brand equity," the ADB said in its Asian Development Outlook for this year. These initiatives may create multiple innovation bases and hubs, it said. The ADB report suggested that the government should aim to raise R&D expenditure to at least 1.5% of GDP and concentrate public funds on innovation in a few high-impact

areas. According to the ADB report, Sri Lanka's universities and research labs are not well linked with industry as is the case in many developed and emerging economies. Sri Lanka has started to build up a pool of experts by gearing the education system to produce high quality science and technology graduates, the ADB noted. The proportion of students currently studying science subjects is low, as over 30% prefer the arts. Reform to secondary education to improve curricula and teaching quality should continue to be the government's focus, but the university system also needs quality improvement, the report concluded.

## Ooredoo inks wholesale deals with PCCW, BICS, cable consortium

Ooredoo Global Services (OGS) has struck three partnerships that it claims will extend the reach and range of services on offer from its budding wholesale arm. In a statement last week, the Qatar-based operator said it has signed agreements with PCCW Global, BICS, and the Sea-Me-We 5 consortium. "Ooredoo Global Services continues to forge ahead with its strategy to become the premium partner for wholesale carriers looking for connectivity in the Middle East, North Africa and Southeast Asia," said Yousuf Abdulla Al Kubaisi, CEO of OGS. OGS' agreement with PCCW Global – the wholesale arm of Hong Kong Telecommunications (HKT) – will see the carriers interconnect their IPX infrastructure so that both companies can provide various IP services, such as VoIPX, video conferencing, and Ethernet, among others, to operators and multinational companies. OGS will also offer PCCW Global's enterprise customers a raft of IPX and MPLS services to help them tap into Qatar's commercial sector. Meanwhile, the agreement with BICS will enable OGS to offer 4G data roaming services in more than 75 countries, including major markets in North America, EMEA and Asia-Pacific, via the latter's IPX platform. In addition, OGS will manage the Sea-Me-We 5 submarine cable system's landing stations in Qatar and Oman on behalf of parent company Ooredoo. The partnerships are a significant step for Ooredoo, which officially launched OGS in May last year. "With Ooredoo Global Services, we will be able to provide the highest level of management and support for carriers and customers looking to access these networks – and ensure incredible value for all," said Al Kubaisi.

## Moroccan telcos pay €187m for 4G licenses

Maroc Telecom, Meditel and Inwi win 4G mobile licenses, ANRT reveals. Morocco's three mobile network operators have all won 4G licenses in a contest that raised upwards of 2 billion dirhams for the state. The country's telecoms regulator on Wednesday announced that it has assessed applications from Maroc Telecom, Meditel and Wana Corporate, which operates as Inwi, and awarded 4G licenses to all three. Together the operators will pay MAD2.003 billion dirhams (€187 million) for their licenses, L'Agence Nationale de Réglementation des Télécommunications (ANRT) said. They will also have to contribute MAD860.4 million to the cost of spectrum refarming. Maroc Telecom agreed to pay the most for its license with a bid of MAD1 billion, double the offers made by its smaller rivals. The country's smallest player Inwi - which had a 27.9% share of the market at the end of last year, according to the regulator, won a license for MAD503 million, while Meditel agreed to pay MAD500.4 million. "The three applicants submitted high quality bids including investment commitments to contribute to the development of the national telecommunications infrastructure," the ANRT said, in a statement. Specifically, the telcos made coverage commitments for the first five years that exceed the minimum requirement of the competition, the regulator said. They also laid out quality of service parameters that are aligned with international best practice, and their business plans will contribute to the development of the mobile broadband market in Morocco, ANRT added.

## Bahrain highlights ICT industry investment chances

An Indian delegation comprising 20 representatives from leading information and communications technology (ICT) firms has been given an insight into Bahrain's position as a gateway to the region, the Economic Development Board (EDB) announced yesterday. As part of the visit, the EDB organized a series of business meetings for the delegates with their counterparts from Bahrain in the Bahrain

Chamber of Commerce and Industry. More than 100 meetings were held between members of the delegation and their Bahraini counterparts. The delegates are also participating in the Bahrain International eGovernment Forum 2015. Officials from the EDB briefed the visitors on the kingdom's investment climate and competitive advantages through a presentation which introduced the benefits of setting up business in the country with a diversified and free economy. The meeting also discussed Bahrain's positive international rankings, which are testament to the kingdom's policy in addressing economic changes with flexibility. It also showcased Bahrain's uniqueness in providing national qualified workforce, and affordable and low-cost living environment which contribute to the country being a gateway to the gulf market. EDB chief executive Khalid Al Rumaihi said they were hoping to capitalize on the historic relations that link Bahrain with India to strengthen the cooperation between the two countries in vital sectors including ICT. Kaar Technologies founder and Nasscom delegation leader Maran Nagarajan said the delegates were keen to learn more about investment opportunities in the kingdom and enhance relations with the private sector in Bahrain. "This will serve our objective of increasing the presence of Indian ICT firms globally and in the GCC countries in particular. "Bahrain offers an excellent professional talent pool which can be utilized by the Indian ICT companies to gain foothold in the GCC region," Mr Nagarajan said. With more than 1,500 members Nasscom is India's main ICT association.

## PTA sets April 12 deadline for SIM verification

The Pakistan Telecommunication Authority (PTA) has announced that unverified mobile phone SIMs will be blocked after April 12; however, it has also extended the period - during which a blocked SIM can be unblocked - from two months to six months. Addressing a news conference on Saturday, PTA chairman Dr Ismail Shah said some 70.5 million SIMs were already verified against 54 million CNICs through the biometric verification system, while 11 million SIMs had been blocked. In reply to a question, the PTA chairman said intelligence agencies had not shared details of the SIMs used in December 16 terrorist attack on schoolchildren in Peshawar. "[Apparently] investigation sensitivities are involved in the process,"

he added. He also announced that government has decided to suspend mobile phone services in Islamabad on the March 23, when a parade will be held in the federal capital in connection with Pakistan Day. "We are just supposed to implement the orders [to suspend the services], as sensitive and security issues are involved," he said, when asked why the services were being suspended. Commending the role of cellular companies, Dr Shah said they have spent tens of millions of dollars during the SIMs verification process. "In a bid to support the government in countering terrorism, the telecom industry deployed 15,000 new biometric machines for the SIM re-verification drive in addition to 65,000, which were deployed earlier by all five operators." The PTA chief said once the process of SIMs verification completes, the authority, along with cellular companies, will also approach the apex court to seeking removal of certain restrictions on cellular companies, including the restriction on every individual to keep only five SIMs. He also offered services of the PTA to cellular companies, stating that a marketing plan will be chalked out for them to overcome the business losses which occur during the verification process.

## Egypt's Orascom Telecom net profit plummets 76.4 percent in 2014

Egypt's Orascom Telecom saw net profit plummet 76.4 percent in 2014 to 263.9 million Egyptian pounds (\$34.6 million), down from 1.12 billion pounds a year earlier, the company said on Wednesday. The company posted revenues of 2.698 billion pounds for the year, up from 2.443 billion in 2013, it said in a statement in Egypt's Al-Alam Al-Youm newspaper.

## KSA: Transport, telecom services reviewed

The Council of Economic and Development Affairs held a meeting in Riyadh on Monday under the chairmanship of Defense Minister Prince Mohammed bin Salman, chief of the Royal Court, and discussed matters related to transport, telecom services and other development projects. The meeting heard a presentation from Transport Minister Abdullah Al-Muqbil on the ministry's present and future projects. Minister of Communications and Information Technology Mohammed Al-Suwaiyel also gave a presentation on his ministry's plans





to boost telecom services. Al-Suwaiyel emphasized his ministry's efforts to develop telecom and information technology services, an official statement said, adding that the council adopted a number of resolutions on the basis of the two presentations. The council members including a number of senior ministers attended the meeting, which took place at the Royal Court in Riyadh.

## Etisalat and Huawei join forces to enable 'Network2020'

Etisalat Group- the leading telecoms operator in the Middle East, Asia and Africa - and Huawei - a leading global ICT solutions provider - have today announced plans to jointly develop a framework and architecture for end-to-end network 2020. The companies believe that the year 2020 will require a different telecom networks to address customers need. Network 2020 is a vision that comprises of a number of technology advancements like virtualization, software defined networks, ultra high speed networks, cloud and etc. Those will be the building blocks for a completely new network architecture that should address the transformation towards a more connected society and digital living. As a result, end users will be able to enjoy existing and innovative new ICT services more rapidly and with the best reliability and quality. Hatem Bamatraf, Chief Technology Officer at Etisalat Group said: "Etisalat believes that current telecommunication networks must be agile, intelligent, flexible and open in order to transform customer experiences and take it to the next level. By introducing initiatives, such as Network2020, we hope to develop a network environment that will deliver a better, more connected world and enhance the experiences of all of our customers." "For over a decade Huawei and Etisalat have enjoyed a longstanding partnership in the field of research & development. By constantly looking to simplify network architecture, we have in this latest memorandum identified a specific set of technologies that we believe will foster more inspired communication services for the public over the next decade," says Alan Wang, President of Huawei

Etisalat Global Key Account. As part of this initiative, during 2015, Huawei will support Etisalat Group to design and plan a framework of target network architecture and evolution towards "Network 2020" vision. This framework architecture will encompass, but is not limited to, emerging technologies, such as software defined networking (SDN) and network functions virtualization (NFV) and adaption of open ICT standards across all layers of network. The joint plan was formalised by the signing of a Memorandum of Understanding (MoU) during this week's Mobile World Congress. The MoU builds upon a long-standing partnership, which has enabled Etisalat to bring a number of technology firsts to the region. Huawei has supported Etisalat on a number of such milestones, including a joint cooperation plan to explore and deploy super-speed 5G mobile broadband services.

## MENA region to post second-fastest IT growth in 2015

Organizations in the Middle East and North Africa (MENA) are early adopters of the technology innovations, as the wider region will post the world's second-fastest IT growth in 2015, SAP MENA's new Head of Customer Office said. The Middle East and Africa's ICT spending is set to pass \$270 billion in 2015, with the region's IT market growing nine percent, the second-fastest of any global region, according to research firm IDC. In particular, IDC predicts strong growth in Smart Cities, telecommunication and digital services, and security investments. With global ICT growth on the rise, SAP predicts there will be 75 billion connected devices and 2.5 billion connections by 2020, unlocking an opportunity of \$65 trillion in what SAP calls the "Networked Economy". "Organizations in the MENA region are deploying the latest technology not simply because it exists, but rather to innovate new business models, radically simplify business processes, and deliver superlative experience to tech-savvy customers," said Sam Alkharrat, President, SAP MENA. "Technology is becoming increasing vital as the region hosts mega-projects and mega-events like World Expo 2020 and 2022 FIFA World Cup Qatar, with ICT helping organizations to gain a competitive advantage and to drive the region's economy." In anticipation of the increasing importance of customer innovation in the Networked Economy, SAP MENA has become the

first in Europe, the Middle East, and Africa (EMEA) to open a dedicated Customer Office. "By opening SAP's first regional customer office, we're demonstrating our support for the Middle East's sustainable economic growth. We're helping our customers to accelerate innovation adoption and value realization, as well as to leverage best practices from around the world, while enhancing project delivery coordination and communication to senior leaders," said Frank Forndron, the newly-appointed Head of Customer Office, SAP MENA.

## UAE TRA signs MOU with GSMA at MWC in Barcelona

The General Authority for Regulating the Telecommunications Sector (TRA) successfully concluded its participation at the Mobile World Congress (MWC) held in Barcelona from March 2-5 with the presence of ICT Ministers, representatives of government and private entities who are involved in ICT issues in general and mobile phones and networks coverage sector in particular. This participation has resulted in TRA signing an important MOU with the GSM Association (GSMA)



in addition to participating in the Event's Ministerial Program sessions and holding several bilateral meetings all directed towards supporting the TRA's vision and mission to achieve a remarkable and effective presence on the global level and strengthening the strategic partnership with the concerned international parties.

## Mobily explains restated financial results; CMA to allow trading of its shares from March 5

Sulaiman Al-Gwaiz, chairman of Saudi Arabian operator Etihad Etisalat (Mobily) has said that the additional reported losses of SAR1.133 billion (USD302.14 million)



for 2014 are primarily attributed to 'precautionary measures', which have been approved recently by the board of directors to mitigate medium- and long-term risks, the GulfBase reports. The executive revealed that the breakdown of the additional charge was as follows: SAR677 million recorded as an extra general and administrative expense in regards to provisions for existent short-term and long-term receivables, for running lawsuits and others; SAR194 million reduction in other income after the re-evaluation of an agreement with one of its network providers; SAR186 million recorded as cost of services and sales which are related to the amortisation of deferred costs of devices for customers based on additional information and revised estimates; and SAR76 million recorded reduction in revenue. Further, the operator insisted that it could meet all of its debts, adding that 'the company does not anticipate difficulties with respect to future financing repayments and costs'. Saudi Arabia's Capital Market Authority (CMA) subsequently said it would permit trading in Mobily shares to resume on 5 March 2015. As previously announced by CommsUpdate, Mobily's shares have been suspended for a week in response to the company's financial troubles.

### Zain Kuwait inks '4.5G' agreement with Huawei; Ericsson tapped for transformation project

Zain Kuwait and equipment vendor Huawei Technologies have entered a new strategic cooperation deal which will see the two companies trial and implement 4.5G services on Zain Kuwait's network over the next three years. The announcement follows the inking of a Memorandum of Understanding (MoU) between Zain Group and Huawei during the Barcelona Mobile World Congress to pilot new solutions with Huawei using 4.5G standards including radio access networks (RAN) and network virtualization architecture. Zain Kuwait CEO Omar Al-Omar

said: 'As the largest operator in the country offering nationwide 4G services, we recognize that to meet our customers' ever-increasing demand for data, we need to continually invest in network upgrades for the future prosperity of the company and the wider economy at large. Cooperating with Huawei in the piloting of, and eventual roll-out of 4.5G services, will ensure that Zain Kuwait remains at the forefront of technology, providing our customers with a superior telecom experience.' Meanwhile, Zain Kuwait has awarded a Business Support Systems (BSS) transformation project to Sweden's Ericsson, which will allow its subscribers to benefit from the advantages of a fully integrated and convergent environment with higher level of flexibility and shorter time-to-market for new and updated offerings.

### Inwi to invest MAD10bn in network improvements over five years

Moroccan network operator Inwi (Wana) is planning to invest MAD10 billion (USD1.03 billion) in the deployment of broadband services over the next five years, domestic news source Aujourdhui Le Maroc reports. The operator disclosed that for the period 2010-2014 it has invested 30% of turnover in infrastructure upgrades, with plans to accelerate its CAPEX to 40% of revenues in 2015. The cellco is aiming to upgrade its network to Long Term Evolution (LTE) standard, conditional on the award of a 4G license, while also heavily investing in ADSL technology in order to extend its broadband reach across the country. As previously reported by CommsUpdate, telecoms regulator the Agence Nationale de Reglementation de Telecom (ANRT) initially planned to award 4G licenses at the start of 2013, with commercial launches following by the end of that year at the latest, although the tender has since been postponed on several occasions. In November 2014 Inwi trialed LTE technology in Mohammedia, achieving download speeds of 150Mbps over its test network. Shortly after, CEO Frederic Debord disclosed that the operator's participation in the forthcoming LTE tender was subject to the conditions for granting and operating a 4G license; the cost of the license itself and terms regarding infrastructure sharing were said to be Inwi's primary concerns.

### Du launches LTE-A, contracts Kuwaiti firm for network maintenance

United Arab Emirates (UAE) fixed and mobile operator Du has announced the commercial launch of Long Term Evolution Advanced (LTE-A) 4G technology on its networks. The network employs carrier aggregation technology to provide peak theoretical download speeds of 225Mbps, Du says. The telco launched its first LTE services in June 2012 using spectrum in the 1800MHz band. Separately, Du has awarded a AED52.6 million (USD14.3 million) contract to Kuwait-based firm Future International Communications covering the maintenance of all its fixed and cellular infrastructure, including fibre backbone networks. The contract will run for three years.

### Telecom Egypt aims to serve more than half of fixed subscribers via upgraded network by end-2015

As part of plans to increase network efficiency and provide improved quality services, Telecom Egypt (TE) has confirmed that it now expects some four million customers to receive their fixed line communication services via fiber-based technologies by the end of 2015. Having previously said it would invest in upgrading its nationwide access network from copper-based technologies, it has confirmed that around two million of its approximately seven million fixed line subscribers have benefited from infrastructure improvements that it has carried out. With the telco having listed a number of exchanges where it expects to work to be carried out in the future, Daily News Egypt cite areas which will benefit from the network upgrades this year as including: East Cairo, New Cairo, Giza, Alexandria, North Coast, East Delta, Mid-Delta, Northern Upper Egypt, Central Upper Egypt and South Upper Egypt.



# Celebrations of the International Girls in ICT Day

More women in ICT sector – it pays off!



**Magdalena Gaj**  
President of the Office of  
Electronic Communications, Poland

## 1. Gender gap in tech industry - a global concern.

Marie Curie – Skłodowska, a distinguished Polish chemist, mother and the first female professor at Sorbonne was a passionate scientist who made a scientific career achievable for countless girls around the world. She was awarded with two Nobel Prizes in a century when only men gained public recognition for scientific research.

Nevertheless, almost a hundred years later, gender gap in science, technology, engineering and mathematics (STEM) remains a continuous challenge influencing both social and economical progress. The issue of underrepresentation of women in technology has been noticed by the International Telecommunications Union (ITU) which has identified this as an important area to support. During the 2010 Plenipotentiary Conference in Guadalajara, the Union's member agreed that the International Girls in ICT Day will be celebrated on the fourth Thursday of every April.

It created an opportunity to raise awareness of young women and girls to consider a professional future in information and

communication technologies (ICT), studies in STEM fields and the most importantly to globally combat culturally or socially-

predominant stereotypes. Up to now, celebrations engaged over 111, 000 girls and women globally. More than 3,500 events have taken place in 140 countries.

Apart from declaring International Girls in ICT Day, the ITU community called for action in Busan Resolution 70, adopted during the 2014 Plenipotentiary Conference in South Korea. Main goals of the resolution are to ensure that the gender and equity perspective is mainstreamed in all ITU policies, that the participation of women and girls in telecommunication and ICT domain is fostered at an early age and that the need for ICT tools and applications to empower women is addressed properly.

The call for bridging the gender gap in computer science and new technologies has been addressed on international, national and entrepreneurial levels. Supporting the education of women and girls in the ICT sector is also in line with United Nations Millennium Development Goal 3 to promote gender equality and the empowerment of women.

The European Union declared that women's access to ICT careers is essential for the sector's growth, as well as for the sustainability of the European economy. African Union Summit in February 2015 ended up with a strong call for women empowerment, as African states realized that there can be no equitable development



without progress for girls and women.

Steps are taken by various governments worldwide. However, according to 2013 Broadband Commission research, gender aspect is largely absent from ICT policies. In addition, only 30 out of 119 analyzed countries that adopted National Broadband Plans included the reference to gender as an issue.

The benefits of the diverse teams have been noticed also by business. Workplace diversity leads to more creative, synergistic and effective outcomes. Equality means business, that is why United Nations Secretary General Ban Ki-moon urged private sector to help close the gender gap during the Women's Empowerment Principles event held in March 2015. This call for action goes beyond the ICT industry as equality and diversity is crucial in all sectors of the economy. Sustainable economic development is influenced by the human resources and gender equality is its critical component.

## 2. Data and statistics.

Lack of women in tech industry is not a problem of selected countries or regions. It is a global issue.

The ITU(2013) estimates that there are 200 million fewer women than men active online. European Commission (EC) in its report 'Women active in the ICT sector' shows that women represent only 30 per cent of the industry's workforce. Only 9 per cent of European app developers and 19 per cent entrepreneurs (compared to 54 per cent in other sectors) are female. At the same time, EC estimates that Europe will face a shortage of up to 900 000 ICT professionals by 2020, whereas the ITU is talking about the need of 1.7 million employees globally in the coming years.

Not only Europe faces the challenge of gender gap. According to data collected by Global Tech Women, in Japan women constitute a mere 14 per cent of all researchers and 16 per cent in South Korea. In South Africa women comprise 20 per cent of the ICT workforce, whereas in India the number is slightly higher at the entry level (21 per cent) to fall to only 5-7 per cent at the top managerial posts. Even in the United States, which included gender reference in its Broadband Plan, women's share in various computing occupations in

2012 was at the level of around 30 per cent.

Female representation on managerial positions is even a bigger challenge. 88 per cent of IT directors in 57 companies in Hong Kong, surveyed by Economist Intelligence Unit in 2013, were male. Moreover, research showed that women represented fewer than 10 per cent of IT staff at more than half the companies.

Taking into account only above mentioned data, the future of women in technology & innovation had never before been more important and timely. Women are underrepresented in many industries, but not all sectors will influence the future as much as the ICT and innovation.

## 3. Benefits of diversity.

The ICT Sector needs to attract more women because it is beneficial to the business, economy and society.

According to Intel (2013) by bringing 600 million additional women online the global GDP could boost by up to 18 billion \$. Ernst & Young assumes that over the next decade, the impact of women on the global economy will equal the impact of China's or India's populations. Only in the European Union, the integration of women with ICT studies into the ICT workforce in the same proportion as men would represent a growth of the EU GDP of 9 bln Euro.

What is more, companies in which there are more women on the boards reach better financial results. This is the case especially regarding the indicators such as: brand value, return on capital, return on sales and invested capital, as well as operating and net profit. 77 per cent of the 100 highest valued corporate brands have women in their boards.

According to Morgan Stanley Capital International All Country Index (2011) an average market capitalization of

companies in telecom and ITC sectors has been increasing with the higher proportion of women on their boards. Moreover, value that comes from the synergy of diverse teams gives a company a competitive advantage in the form of higher innovation and productivity, as well as creativity in creating products and services better tailored to the needs of the end users. Apart from the economical reasons, there are plenty of benefits to the society if more women are engaged in the ICT sector. Employees in companies supporting diversity have higher level of self-fulfillment and satisfaction. They place a higher value on work.

In many developing countries women are the engine of family welfare. Providing them with access to the Internet in the first place will improve their life, health, education and empower them to participate in governance processes. Internet and new technologies has a potential to transform lives of billions of people as it helps to acquire new skills and education, develop business opportunities or simply enables teleworking. In addition, jobs that incorporate ICTs generally offer higher and more competitive pay.

Many jobs of the future have not been invented yet. We cannot be sure what those future jobs will actually look like but one fact is clear - they will all require IT skills. More girls and women considering their careers in ICT, rising awareness among parents, decision makers and teachers create a chance for further economic development and reduction of unemployment rate, in particular in relation to young people entering the work market.







#### 4. What can be done?

There are several ways to address the problem of gender gap.

One is campaigning through such actions as Girls in ICT Day. The ITU's goal standing behind this idea is to make young women aware of the possibilities offered by the technology sector. It is crucial to build a confidence in girls to pursue studies in STEM fields and careers in ICT industry.

3 years ago I launched in Poland a social project called "The Girls in New Technologies". It consists of annual conference and a contest for female students of technical faculties. Girls who participate in this competition have a unique chance to get an internship in a selected partner company. Many students can only dream about a job in a global high-tech corporation. The contest give girls the opportunity to join such firms and stay working for them. It has changed lives of many young girls in Poland. I dream that one day it becomes a global best practice.

female high school students and promoting this educational path as interesting, attractive and very beneficial can bring expected effects in the long run.

Actions should be continued on international and national levels. Moreover, there is a need to share and disseminate best practices of gender equality policies and projects.

Young women often seek role models to look up to. There are many examples of women of success in the ICT sector. They can engage as goodwill ambassadors of women empowerment through technology and persuade young women that work in ICT industry can enable a better work life balance. However, girls considering their carriers in ICT sector also need to see that their peers in other cities or countries are facing similar problems and challenges.

However, gender equality is not just a 'women's issue'. It should concern and fully engage both women and

men to galvanize into action. Men are crucial and needed to become gender advocates in tech sector, as many of them are the policy makers who can become diversity leaders.

T h e obstacles in strengthening w o m e n engagement in tech industry are often internal barriers in women themselves, traditional roles in society, as well as conviction that women are not good enough to undertake technical studies or jobs in tech sector. Changing stereotypes and negative associations should start at the early stage at schools. Introducing coding into a school curriculum, technical and engineering studies to

men to galvanize into action. Men are crucial and needed to become gender advocates in tech sector, as many of them are the policy makers who can become diversity leaders.

Tech companies has already noticed that the lack of gender diversity is holding back innovation. Many of them are adjusting their policies in order to attract more female talents. Some of them are introducing mentoring and coaching for women employees, providing them with a roadmap for personal development. However, changes take time and there is still plenty to do in this area.

#### 5. Closing remarks.

More women in ICT sector pays off, not only economically. More female IT professionals, entrepreneurs, managers or CEO's empower women to fully engage in key policy and decision making processes.

Information and technology industry is the bloodstream of economy and no country will be able to operate without it, as it makes an increasingly important contribution to the economic growth of both advanced and developing economies. The sector is growing rapidly, creating about thousands of new jobs each year. It is a driving force in economic development and wider social change. I want women to have a share of this pie.

ICT sector cannot afford wasting 50 per cent of potential talent by excluding or discouraging women to step in. Governments and other institutions must play a larger role in enabling innovation and encouraging women to participate in technological advancement. Celebrating the International Girls in ICT is the first step to create a global environment to discuss the importance of empowering women though new technologies.

There is a need to think ahead, because the success and the future development of ICT sector will derive from diversity. Without Equality through Diversity we are going nowhere.





## ▼ REGULATORY NEWS

### REGULATORY UPDATES

#### TRAI seeks views to regulate Over-The-Top services

The Telecom Regulatory Authority of India (TRAI) asked stakeholders whether it was too early to establish a regulatory framework for over-the-top (OTT) services, since internet penetration is still evolving, and access speeds are generally low and there is limited coverage of high-speed broadband in the country. At the same time, TRAI sought opinion on whether a beginning should be made now with a regulatory framework that could be adapted to changes in the future in a Consultation Paper on 'Regulatory Framework for OTT services.' The regulator wants stakeholders to send in their comments by 25 April and counter-comments by May 8. TRAI wants to know if OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) should be brought under the licensing regime. It has sought suggestions on whether the growth of OTT is impacting the traditional revenue stream of telecom service providers and is the increase in data revenues of the TSPs sufficient to compensate for this impact. The regulator wants stakeholders to state whether the OTT players should pay for use of the TSPs network over and above data charges paid by consumers, the pricing options that can be adopted and could they include prices

based on bandwidth consumption. At the outset, TRAI has noted that TSPs offering fixed and mobile telephony are currently being overwhelmed by online content, known as OTT applications and services. The term OTT refers to applications and services, which are accessible over the internet and ride on operators' networks offering internet access services e.g. social networks, search engines, amateur video aggregation sites etc. The best known examples of OTT are Skype, Viber, WhatsApp, Chat On, Snapchat, Instagram, Kik, Google Talk, Hike, Line, WeChat, Tango, e-commerce sites (Amazon, Flipkart etc.), Ola, Facebook messenger, BlackBerry Messenger, iMessage, online video games and movies (Netflix, Pandora). Today, users can directly access these applications online from any place, at any time, using a variety of internet connected consumers. TSPs also means Network providers, Internet Service Providers, fixed and mobile, broadband providers, data service providers, wireless net providers and access providers. It is becoming increasingly difficult for consumers to know if there is an economic difference in connecting various networks via a land phone, cell phone, or a computer. In fact, young users find it difficult to distinguish among these three networks; from their perspective, all that matters is connectivity. They visualize these not as a layered and interconnected series of discreet networks, but as an organic whole. The regulator therefore wants



to know how the security concerns should be addressed with regard to OTT players providing communication services and what security conditions such as maintaining data records; logs etc. need to be mandated for such OTT players. Furthermore, suggestions are sought on how the OTT players offering app services ensure security, safety and privacy of the consumer.

## SK Telecom handed business suspension for offering illegal subsidies

In addition to a financial penalty for offering illegal subsidies, SK Telecom (SKT), South Korea's largest cellco by subscribers, will be barred from signing up new subscribers for a seven day period, according to the Korea Observer. As reported by CommsUpdate earlier this week, it was revealed that the Korea Communications Commission (KCC) was close to finalising details of a financial penalty for breaching the Mobile Distribution Act; the cellco had been accused of offering illegal kickbacks with a view to attracting customers and clearing handset stock ahead of the launch of the Samsung S6. Having concluded that the cellco had paid an average of KRW228,000 (USD206) in excess of the legal subsidy limit – KRW300,000 – in January 2015, the KCC has confirmed that, in addition to a KRW23.5 billion fine, SKT will face a seven day business suspension. However, it has said it has yet to decide when this will start, due to the possible repercussions on consumers, as Samsung is due to launch its new Galaxy handset next month. Unsurprisingly unhappy with the development, SKT said in response: 'Considering the overall market condition, the government's exclusive investigation [on SKT] is extremely regrettable.'

## BTRC toughens telecom services regulation

The BTRC issued a fresh set of directives to telecom operators, laying out instructions on service and tariff for protecting the interest of consumers. The directives included restrictions against the use of ambiguous and alluring language for promotional campaigns, auto-renewal of different packages, and the discarding of unused data for consequent charging intervals. The directive mentioned that if any SIM was found to be unused for two years, the operators could sell it in due process. According to the directive

by Bangladesh Telecommunication Regulatory Commission, in designing a product or an offer, mobile companies have to avoid using addictive elements that are likely to lure the consumers to indulge in irrational or unnecessary heavy usage or recharge. Promotional offers would also not be allowed to use words like "best," "highest" and "first," according to the guideline. The directive also said the bonus of any promotional offer, like talk-time, SMS, MMS or data volume, would have to be reasonably consumable within the stipulated time.

## NATCOM fines AFcom for bypassing the international gateway

Sierra Leonean internet Service Provider (ISP) AFcom has been fined USD220,000 for illegally terminating international calls and thus bypassing the country's international gateway, local newspaper Global Times reports. Following an investigation into SIM box fraud, the police reportedly raided a company's depot at the Bamoi Hotel, located in Freetown's upscale neighborhood of Aberdeen, and seized equipment allegedly used by the company to illegally terminate international calls. Momoh Konte, chairman of the National Telecommunications Commission (NATCOM), said in an interview with the local media: 'We have to end this culture of impunity ... Those defrauding the state of much-needed revenue are nothing but enemies of the state... They must be prosecuted for undermining the country's fragile economy.' A spokesman for NATCOM also said that other companies and private individuals involved in SIM box fraud will be named by the telecoms regulator in the coming weeks.

## Telecom authority fines Magyar Telekom HUF 65 mln

Hungary's National Media and Infocommunications Authority (NMHH) fined Magyar Telekom HUF 65 mln on charges of failing to give clients compensation and related information regarding restriction of services, the Authority said. The sanction was not Magyar Telekom's first in the field, and apparently affected thousands of clients. The company also temporarily gained several million forints with the practice, NMHH told state news

agency MTI as a justification for the size of the fine.

On February 13, the authority fined Magyar Telekom HUF 160 million for allegedly violating regulations and general contract conditions by restricting services, and it fined Magyar Telekom's chief executive an additional HUF 2 million.

## TDSAT orders DoT to provide 'clean' spectrum

The Telecom Disputes Settlement and Appellate Tribunal (TDSAT) has ordered the Department of Telecommunications (DoT) to allocate 'clean' frequencies to 3G providers in border regions, where signals are experiencing interference from Pakistani networks, within the next four to six weeks, the Financial Express writes. Bharti Airtel and Vodafone India petitioned the court last month regarding interference in the Punjab, Rajasthan, Gujarat and Jammu & Kashmir circles. The TDSAT's order is not expected to affect the ongoing spectrum auction, and the duo's replacement frequencies are anticipated to be drawn from the 15MHz of 2100MHz airwaves that the Ministry of Defense has agreed to swap for 1900MHz spectrum.

## OFCOM to review telecom market in UK, after 10-year gap

British telecom regulator OFCOM announced its plans to review Digital Communications that will examine competition, investment, innovation and the availability of products in the broadband, mobile and landline markets. The telecom regulator is doing this major review after a gap of 10 years. This review will be Ofcom's second major assessment of the telecom sector. The first major review started in December 2003 and completed in September 2005. The review led to new rules which allowed competing providers to access BT's network, on equal terms, to offer phone and broadband services to consumers. The Ofcom statement does not talk about bringing out guidelines on net neutrality in the U.K. telecom market. The recent FCC norms on net neutrality were objected by several telecom operators such as Verizon and AT&T in the U.S. Ofcom will conduct the review in two phases. The first phase of the review, which will examine current and future market factors that may affect digital communications services, will conclude with a discussion document in summer 2015. The second phase

of the review will outline initial conclusions around the end of the year. The new review will aim to ensure the right incentives for private-sector investment, which can help to deliver availability and quality of service. It will also focus on maintaining strong competition and tackling bottlenecks that may be holding the telecom sector back. The special review will consider any scope for deregulation in some areas. Steve Unger, acting chief executive of Ofcom, said: "We have seen huge changes in the phone and broadband markets since our last major review a decade ago. Only five years ago, hardly any of us had used a tablet computer, high-definition streaming or 4G mobile broadband." The Strategic Review of Digital Communications will consider the impact of current and future developments for regulation, including: plans from operators for network investment; telecoms services increasingly operating over the internet; and various potential mergers, acquisitions, joint ventures and partnerships in the sector, said Ofcom. Ofcom says its periodic reviews have assisted both telecom operators and subscribers. For instance, since 2005 broadband speeds have increased more than 20-fold, while prices fell by around 50 percent; and the cost of a monthly mobile bundle has halved to £16 from around £32.

## TRA backs forum on eGovernment

The Telecommunications Regulatory Authority (TRA) Bahrain has announced its support for the Bahrain International eGovernment Forum 2015 as the event's 'Platinum Sponsor'. Being held under the patronage of Deputy Prime Minister and the Supreme Committee for Information and Communication Technology chairman Sheikh Mohammed bin Mubarak Al Khalifa, the annual forum will provide an integrated technical program, featuring a number of internationally renowned keynote speakers. 'In order to adapt to changes of technologies' fast-paced environment, leaders of technological industries and entities must stay a step ahead,' TRA chairman Dr Mohammed Al Amer said. 'The forum is an event we look forward to every year as the value of knowledge gained cannot be taken for granted.' TRA's communications and media manager Taiba Al Binali said in previous years, the event has brought together international leaders within the ICT sector 'invaluable insights from both local and international experts, whom some have assisted

Bahrain in evolving its ICT strategy. The forum will be held from March 15th "19th at the Isa Cultural Centre and Bahrain International Circuit.

## UAE in crackdown on social media abuse

The UAE's Telecommunications Regulatory Authority (TRA) have started monitoring social media networks for inappropriate and abusive behavior as part of a crackdown on social media bullying. The TRA has established an alert system that will detect when certain keywords are being used, after which officials will investigate whether any illegal act has been committed, such



as nudity, sexual cyber extortion and insulting members of the ruling families. "We have started monitoring all the social media channels – all websites and profiles are monitored," said Ghaith Al Mazaina, acting manager at the security quality service at the TRA told 7Days newspaper. "This system will pinpoint bad behavior, such as someone publishing nudity on the Internet. If an offence has been committed, the TRA's security quality service section will pass it on to Internet Advancement, another department at the authority. "We try to get the page or profile down or remove the violation as soon as possible and report the case to police if it is a criminal case," said Abdul Rahman Al Mazrouqi, manager for Internet Advancement at the TRA. Monitoring of social media channels, like Twitter and Facebook began in the last week of February. The TRA press conference was held in collaboration with the 'Al Ameen Service' service launched by Dubai Police, which is aimed at promoting awareness of cyber blackmail, an increasing problem in the region, ITP.net reported. According to Dubai Police's

Saeed Alhajri, in 2014, 212 cases of extortion and blackmail via social media had been reported compared to 80 in 2013. He noted that this is just the number that the police know of and he believes there are many more cases that go unreported. Alhajri said: "Criminals use different social media or matching applications to identify their victims. Then they get them to behave inappropriately on the screen and either asks them to send photos or record videos. Once the criminal has the sexual material they blackmail their victim." When asked if victims are scared to come forward and if there was a punishment for victims, Alhajri said that each case was different and treated individually. The campaign is

aimed at educating users in the UAE on the risks and consequences caused by careless Internet use and raising awareness on being cautious while sharing data on the web. Alhajri also said that before 2015, in most of the cases the victims were women, however criminals have developed their techniques and

methods and "they know how to trap people" so the numbers of men and women victims are equal. Victims of cyber blackmail range from young teens to people in their forties and fifties and criminals are often outside of the UAE meaning that police are working closely with other authorities. Anyone found guilty of extortion inside the UAE could face a prison sentence of up to ten years. When asked if criminals can still be caught if they are using a VPN, Alhajri pointed out that this in itself was a criminal offence: "Manipulating the network is a crime by itself under UAE law. We have a special article just for this. We don't look at the case from just one angle, we are waiting for the criminal to fail on just one fault."

## The UAE TRA launches Cyber Blackmail Awareness Campaign

The General Authority for Regulating the Telecommunications Sector (TRA) held a press conference to launch its new campaign aimed at promoting awareness on Cyber Blackmail in collaboration with "Al Ameen Service"





launched by Dubai Police. Ghaith Almazaina, Acting Manager, Security Quality Services at TRA and Saeed Alhajri, Dubai Police attended the event. The campaign is aimed at educating users in the UAE on the risks and consequences caused by careless internet use and raising awareness on being cautious while sharing data on the web, especially with the remarkable growth and development of the online space locally with the use of modern technologies. This advancement serves as an opportunity for unscrupulous users who take advantage of this growth to harm other people, violate their privacy and then use their personal data and pictures to obtain financial gain illegally. "We have launched this campaign in collaboration with Dubai Police's "Al Ameen Service" to educate people and raise awareness on the dangers of cyber blackmail and we are prepared to support all national efforts and initiatives at the local and federal levels. The campaign will focus on students in secondary schools, public and private universities and their parents so they stay alert and protected from being victims to this kind of threats. The campaign will also include conducting surveys on Blackmail victims to figure out the circumstances and reasons behind this phenomenon to enable the concerned parties to develop an appropriate and well defined policy to control it and limit its effects," said H.E. Hamad Obaid Al Mansouri, TRA Director General. His Excellency stressed in the speech he delivered at the conference on the pioneering role played by Dubai Police in this area as it was one of the first organizations to take the initiative and try to find solutions for Cyber blackmail attempts by launching "Al Ameen Service" ten years ago. This innovative service has contributed in rescuing dozens of community members from the dangers of blackmail in all its forms and types.

## Pakistan takes tough measures to curb SIM card abuse

The Pakistan Telecommunications Authority (PTA) initially set a deadline of February 26 for holders of three or more pre-paid connections to verify their SIM cards. The PTA planned to block any SIM cards whose owners failed to verify them. Users with fewer cards would have had until April 13. When February 26 arrived, the

PTA announced that it had pushed the deadline back to April 14 for all users. SIM cards that may have been blocked can be reactivated, PTA Chairman Dr. Ismail Shah told Geo News February 26. Even though they failed to verify every SIM card by the initial deadline, officials racked up some impressive numbers over the past two months. More than 10m SIM cards were cancelled or disowned and users verified more than 72m cards, Shah said. "It is a very cumbersome and costly exercise to be completed in the shortest possible time," said Eng. Nisar, a senior telecom specialist. Telecom companies operating in Pakistan also deserve credit for their role in the effort, wrote the editor of FLARE, a business magazine focusing on the country's telecom industry. Five companies during the past few years have spent more than Rs. 24 billion (US \$235.5m) on mandatory verification requirements meant to end terrorism, according to the latest edition of the magazine. The recent verification drive will cost mobile phone companies Rs. 23 (US \$0.23) per biometric verification, meaning they face a likely payment of Rs. 3.2 billion (US \$31.4m) to the National Database and Registration Authority. The government also provided 70,000 biometric verification machines to various stores to help carry out the registration service, Shah said. The following day, the Interior Ministry directed telecommunications companies to prepare to re-verify all SIM cards issued in the country and to block unverified connections. Many citizens are supporting the initiative, despite having to wait in long queues to register their SIM cards.

## Much-awaited telecom spectrum auction begins

The much-awaited auctions for spectrum or airwaves for the 800 MHz, 900 MHz, 1800 MHz and 2100 megahertz (MHz) bands began with eight companies in the fray. "The auction process has started smoothly," a source told IANS. The eight telecom service providers participating are Reliance Communications, Reliance Jio, Bharti Airtel, Vodafone India, Tata Teleservices, Uninor, Idea Cellular and Aircel. These eight companies have submitted an earnest money of Rs 20,435 crore. The Department of Telecom (DoT) has selected Kolkata-based mjunction services - an information technology and internet company promoted 14 years ago as

a 50:50 venture by Steel Authority of India (SAIL) and TATA Steel - for conducting the spectrum auction. The total spectrum put to auction is 103.75 MHz in 800 MHz band, 177.8 MHz in 900 MHz band and 99.2 MHz in 1,800 MHz band - a total of 380.75 MHz in 800, 900 and 1,800 MHz. The government will also put on sale 5 MHz in the 2,100 MHz band, which is used for 3G services in 17 out of 22 telecom areas. The reserve price approved is Rs 3,646 crore pan-India per MHz in 800 MHz, Rs 3,980 crore for 900 MHz band pan-India, and Rs 2,191 crore pan-India in 1,800 MHz band. The government also approved a reserve price of Rs 3,705 crore per megahertz for third generation services. As per estimates, at the base price alone, the auction will translate into some Rs 82,000 crore, even as the actual process is estimated to fetch around Rs 100,000 crore. In December 2015, seven licenses each of Idea Cellular and Reliance Communications, four licenses of Bharti Airtel and six licenses of Vodafone will complete their 20-year term after which they have to be renewed. In total, there are 29 licenses in 18 service areas which expire in 2015-16. The other telecom operators who are not participating in the auction are Sistema Shyam TeleServices, which provides services under the brand name MTS, Videocon Telecom and state-owned BSNL and MTNL. The service providers will bid using fixed internet protocols (IP) as dynamic IP addresses are not allowed. The objectives of the auctions are to obtain a market determined price of spectrum in the bands through a transparent process, ensure efficient use of spectrum and avoid hoarding, stimulate competition in the sector, promote rollout of the respective services and maximize revenue proceeds from the auctions within the set parameters. The finance ministry is expected to closely watch the e-auction of radio frequency spectrum for telecom operators as it is crucial for the government to be able to meet its fiscal deficit target of 4.1 per cent of GDP. For the record, the matter of auction was under litigation even before it began. But the Supreme Court has permitted the Department of Telecom to go ahead with the process from March 4 and await its directions before finalization.



## Italy government pushing for broadband solution

The Italian government is pushing to speed up the roll-out of ultrafast broadband networks to help its ailing economy, fuelling speculation it could force incumbent Telecom Italia into a costly overhaul of its existing infrastructure. The cabinet of Prime Minister Matteo Renzi meets to approve a 6 billion euro (4.33 billion pounds) plan to build a nationwide fiber optic network by replacing the ageing copper wires that run into subscribers' homes. Italy ranks 28th out of the 34 members of the Organization for Economic Cooperation and Development in terms of fixed broadband subscriptions. The 40-year-old premier has made linking together millions of Italian households with super fast cables a priority. Speculation about the plans has been heating up before Tuesday's meeting with little sign of agreement between the government and phone companies including former state monopoly Telecom Italia. Renzi has taken a close interest in the issue, which he considers vital to modernizing Italy's economy and officials see the billions of euros that would need to be invested as a valuable boost to overall demand. However the issue has run into a complex web of problems, running from whether to move straight from the old copper network to modern glass-fiber cables, the costs of investment, price setting, regulation and network access. Tensions were rekindled at the weekend when newspapers reported the government planned to force Telecom Italia to switch off its copper network by 2030, writing off assets worth billions of Euros and upgrading to modern optical fiber. The government late on Saturday denied it would impose such a deadline but the clash highlighted difficulties in reaching agreement with phone operators which will be carrying out the infrastructure upgrade. "The measures to be adopted will be limited to applying the ultra broadband plan to stimulate investment by all the operators: there will be no decree on Telecom Italia or to impose any arbitrary switch off of the copper network," junior minister Antonello Giacomelli said in a statement. Italy was sticking to a European target of bringing connections running at a speed of 100 Megabits to half its population by 2020, the statement said. A source familiar with the talks

said Telecom Italia had warned Raffaele Tiscar, a member of Renzi's broadband task force who had reportedly signed the decree, about the potential damage that would stem from a forced switch-off. Trade unions also voiced concerns, saying such a move would put at risk thousands of jobs at a time when Italy is grappling with record unemployment levels. "Companies have been waiting years for rules that support investment and cannot be asked to pay for delays on the digital agenda," said the Cisl and Fistel unions in a statement. One key problem is that while the government favors bringing fiber directly into the homes -- a more radical infrastructure upgrade that requires costly and time-consuming trench digging -- operators prefer a cheaper solution. Instead of being forced to replace all its copper wires with fiber optic cables, Telecom Italia prefers a more gradual transition by first using existing infrastructure to deliver high-speed broadband through the street cabinets. Sector regulator AGCOM also is favoring the so-called fiber-to-the cabinet architecture but the uncertainty has made it more difficult for phone operators to plan for long term investment. Pending government decisions, Telecom Italia approved last month a plan to spend 10 billion Euros to upgrade its ageing domestic network and hire 4,000 people in the coming years. The plan presented by Telecom Italia follows a failure to reach a deal to buy Metroweb, a part state-owned fiber company, due to disagreements over the ownership structure and opposition from rivals such as mobile phone giant Vodafone.

## CMA suspects Mobily of violating listing rules

Saudi Arabia's Capital Market Authority (CMA) has assigned a specialized team to review telecoms operator Etihad Etisalat's (Mobily's) financial statements and all other related documents, following an investigation to determine any violations by the company towards the bourse rules. The market regulator revealed that it suspects Mobily of breaching Articles (49) and (50) of the Capital Market Law (CML) and section © of Article (42) of the Listing Rules. Article 49 of the CML prohibits several activities, including: creating 'a false or misleading impression' relating to the price or value of a stock, trading securities that do not involve a true transfer of ownership, trading a stock to induce third parties to do likewise

and buying or selling a stock to stabilize its price, while the second clause prohibits trading on inside information not publicly available and that which the insider knows 'would have a material effect on the price or value of such a security'. Section © of Article (42) meanwhile states that once a company's directors approve its financial results, these must not be revealed to shareholders or third parties prior to official release.

As previously reported by CommsUpdate, in November 2014 the CMA launched an investigation into Mobily after the company restated its earnings for an 18 month period due to 'accounting error'. In February 2015 Mobily once again revised its unaudited annual financial results for the twelve months ended December 2014, by restating its previously announced net loss of SAR220 million (USD58.6 million) for the period to SAR913 million, due to 'an additional charge of SAR1.13 billion'. Shortly after, the CMA suspended the trading of Mobily's shares on the Saudi Stock Exchange (Tadawul), with the ban to remain in place until Mobily explains the reasons which led to its net losses.

## China releases FDD-LTE licenses to China Telecom, China Unicom

China's Ministry of Industry and Information Technology (MIIT) on February 27 announced the release of FDD-LTE licenses to China Telecom and China Unicom. MIIT released TD-LTE licenses to China Mobile, China Telecom and China Unicom in December 2013 and approved experimental TD-LTE/FDD-LTE convergence network test by China Telecom and China Unicom in main cities around China in June 2014. The two mobile telecom carriers have experimental TD-LTE/FDD-LTE networks in 56 cities, proving their feasibility, MIIT indicated. There are about 300 FDD-LTE and 30 TD-LTE mobile telecom carriers around the world and the release of FDD-LTE licenses will enable China's 4G development to keep abreast of global trends, MIIT said.



## ▼ A SNAPSHOT OF REGULATORY ACTIVITIES IN SAMENA REGION

### REGULATORY UPDATES

#### Algeria



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

VimpelCom and its fully owned subsidiary WIND Telecomunicazioni announce that they have concluded a definitive agreement for the sale of 90% of the shares of WIND's fully owned subsidiary "Galata" to Abertis Telecom Terrestre SAU for a total cash consideration of 693 million euro ("the transaction"). Galata is a tower business consisting of 7,377 towers together with the relevant functions, employees and related contracts. Upon the transaction closing, which is expected to occur within the first quarter of 2015, Abertis Telecom will own 90% of the share capital of Galata while WIND will retain a 10% stake. At the same time WIND will enter into a Tower Services Agreement for an initial term of 15 years with Galata for the provision of a broad range of services on the contributed sites and sites subsequently built by Galata hosting WIND equipment. Proceeds from the transaction will be utilized by WIND to repay debt. (March 2, 2015) [vimpelcom.com](http://vimpelcom.com)

#### Bahrain



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

The Telecommunications Regulatory Authority (TRA) Bahrain announces its support for this year's Bahrain International eGovernment Forum 2015 as the event's Platinum Sponsor. The annual forum will provide an integrated technical program, featuring a number of internationally renowned keynote speakers. Such prominent figures will discuss and assess the sector's recent issues, make timely strategic course corrections, and plan a road map for the future. In addition to a wide variety of interactive workshops and plenary sessions, all carefully selected to better shape government strategies and implementations across the GCC and international market. Not only does the Forum cater to the needs of individuals in their relative fields, but also aims to give the younger generation a competitive advantage in the market by providing them with a firm knowledge base as well as proper induction of current and future practices. "In order to adapt to changes of technologies' fast-paced environment, leaders of technological industries and entities must stay a step ahead. The forum is an event we look forward to every year





as the value of knowledge gained cannot be taken for granted," quoted TRA Chairman Dr. Mohammed Ahmed Al Aamer and continued that the authority pledges its support this year as Platinum Sponsor. "Since its inception, the Bahrain International eGovernment Forum has been a peak event which sets the way forward for the Kingdom in ICT," commented TRA Communications and Media Manager Taiba Al Binali on the importance of the event. "In previous years, the event has brought together nations' leaders within the ICT sector - invaluable insights from both local and international experts, whom some have assisted Bahrain in adjusting and evolving its ICT strategy. We are very excited to be part of this event and expect to be as mutually beneficial this year as the forum has been every year before." Bahrain International eGovernment Forum 2015 will be held from March 15-19. (March 104, 2015) [www.tra.org.bh](http://www.tra.org.bh)

## Bangladesh



**Chairman: Sunil Kanti Bose**

[Bangladesh Telecommunication Regulatory Commission (BTRC)]

The BTRC issued a fresh set of directives to telecom operators, laying out instructions on service and tariff for protecting the interest of consumers. The directives included restrictions against the use of ambiguous and alluring language for promotional campaigns, auto-renewal of different packages, and the discarding of unused data for consequent charging intervals. The directive mentioned that if any SIM was found to be unused for two years, the operators could sell it in due process. According to the directive, in designing a product or an offer, mobile companies have to avoid using addictive elements that are likely to lure the consumers to indulge in irrational or unnecessary heavy usage or recharge. Promotional offers would also not be allowed to use words like "best," "highest" and "first," according to the guideline. The directive also said the bonus of any promotional offer, like talk-time, SMS, MMS or data volume, would have to be reasonably consumable within the stipulated time. From now on, mobile phone operators will also have to clearly mention about sponsorships if they offer any third-party products to their subscriber and the offer should not look like the mobile company's own offer. The BTRC also directed operators to stop default auto-renewal feature of different data (internet) and value added services, as the subscribers often take those services without having knowledge of such features. The BTRC said a mobile company could never provide auto-renewal features in any offer without the cognitive consent of the subscribers. For auto-renewal of a service or offer, the mobile companies must obtain permission from the subscriber for every charging period, the regulator said. In the directive, the BTRC also mentioned minimum validity of recharge Tk10 for minimum 10 days and Tk1,000 and above for 360 days. (March 13, 2015) [dhakatribune.com](http://dhakatribune.com)

## Egypt



**Executive President: Eng. Hesham El Alaily**

[National Telecommunication Regulatory Authority (NTRA)]

National Telecommunications Regulatory Authority (NTRA) has inked an agreement with the GSMA

under which the duo have established 'a framework of cooperation designed to promote Egypt's mobile economy, recognizing the transformative potential of mobile technology for economic growth, job creation, public services, businesses and wider digital inclusion of Egypt's citizens'. Commenting on the development, Egyptian Communications Minister Atef Helmy was cited as saying: 'The Memorandum of Understanding signed with the GSMA at Mobile World Congress this week reflects our intention to develop a supportive regulatory environment that is based on international best practices and aimed at attracting long-term investment in mobile network infrastructure and services in Egypt.' It is understood that the agreement employs a multi-faceted approach that aims to address both the supply and demand sides of the Egyptian mobile market, with the NTRA and the GSMA expected to develop best practice recommendations on spectrum licensing and infrastructure sharing, while promoting mobile-enabled services for digital and financial inclusion, including e-Government and mobile money.

(March 6, 2015) [telegeography.com](http://telegeography.com)

## Iran



**Minister of Communication & Information Technology: Mr. Mahmoud Vaezi**

[Communication regulatory Commission (CRC)]

Iran is ready to cooperate with Google and other global Internet companies to allow them to operate in the country, according to Iranian media reports. Talks are already under way with Google to place servers in Iran, according to a report Sunday from the official Islamic Republic News Agency (IRNA). The article quoted remarks made to local press by the country's deputy minister of telecommunications and information technology, Nasrollah Jahangard. Similar negotiations are ongoing with several other major U.S. and European Internet companies, according to IRNA. In a separate report from the Fars News Agency (FNA), Iran's semi-official news agency, Jahangard was quoted saying "We are ready to provide Google or any other company with Iran's possibilities and facilities for service providing to the region." Iran is willing to help these companies enter the market, Jahangard said. Names of the other companies were not released and will be announced when the negotiations reach the final stages, the report said. Iran will not interfere with the company's services as long as they abide by Iranian law, Jahangard told FNA. However, U.S. sanctions against Iran are a serious obstacle for U.S. companies wanting to operate there, Jahangard said. Negotiations with non-U.S. firms have apparently been easier though. Technical requirements are now being provided for their imminent operation in Iran, FNA reported. Iran's effort to approach foreign Internet companies fits into a pattern, said Peter Van Roste, general manager of the Council of European National Top Level Domain Registries (CENTR). Iran's registry of the .ir domain IRNIC is a member of CENTR. According to Van Roste, Iran has become more active on a technical level and has started to work with organizations like the Internet Corporation for Assigned Names and Numbers (ICANN) and Internet standards community the Internet Engineering Task Force (IETF). "They realize very well what they need to acquire the necessary knowledge to stay informed of all the developments, in particular in the area of security," Van Roste said. Even though Iran



now seems to be opening up a bit to Internet services from outside the country, the question remains what they can actually offer to Internet users in Iran. In December last year, the government unfolded a plan to filter the Internet in order to block "immoral web content," IRNA reported at the time. Under the system, "characteristics" of all connecting users are automatically identified prior to accessing the Web, the report said. Smart filtering is for instance used to block "criminal and unethical content" content on Facebook-owned photo-sharing site Instagram, allowing Iranians to use the service to some extent, IRNA reported. However, other social media services like Facebook, Twitter and YouTube would remain blocked in Iran as usual, the report said, adding that in the future, the filtering system should work on all websites people can access in Iran.

(March 2, 2015) pcworld.com

## Iraq



**CEO: Dr. Buhan Shawi**

[Communication & Media Commission (CMC)]

An Iraqi court has rejected a \$4.5 billion lawsuit against Zain over its 2007 acquisition of an Iraqi telecom operator, dismissing the applicants' right to appeal, the Kuwaiti group said on Sunday. In a separate judgment, a court also fined Zain unit Zain Iraq \$100 million for using a range of mobile phone numbers without the telecom regulator's permission, although the operator can still appeal against this penalty. In reference to the \$4.5 billion court case, Zain bought Iraqna for \$1.2 billion from Orascom Telecom in December 2007 after the Egyptian company dropped out of the running for a long-term mobile license in Iraq. The Kuwaiti firm then merged its Iraqi unit, Atheer, with Iraqna and renamed the entity Zain Iraq, which today is the country's biggest operator by subscribers. The claimant's lawsuit argued Zain's takeover had stopped the firm buying Iraqna, causing it a \$4.5 billion loss. An Iraqi court dismissed the case in July, but the unnamed claimants - identified by industry sources as shareholders in No.3 mobile operator Korek, part-owned by France's Orange - successfully appealed as a court ruled in their favor. Zain mounted its own appeal to a higher court, which subsequently instructed the lower court to reconsider its verdict. The lower court then decided it had erred in its original verdict, reversing its decision and finding in favor of Zain. That decision has now been ratified, leaving the applicants no right of appeal, according to a Kuwaiti bourse statement on Sunday. (March 15, 2015) finance.yahoo.com

## Jordan



**Chairman of the Board of Commissioners/  
CEO: Mr. Mohammad Al Taani**

[Telecommunication Regulatory Commission (TRC)]

Orange Jordan has confirmed plans to launch 4G services before the end of June this year and, to that end, the cellco has signed an agreement with Huawei covering the deployment of its Long Term Evolution (LTE) network. The operator told the Jordan Times that the service will initially be made available in Amman, before being extended to other cities to cover the entire Kingdom within a matter of months. Orange Jordan CEO Jean-Francois Thomas was quoted by the paper as

saying: 'We will start gradually with the introduction of the service but the rollout will be fast and all Jordanians will have the change to use the service soon.' The senior official added that the company's investment in 4G to-date, including its spectrum costs, stands at JOD250 million (US\$351.52 million). Orange purchased the nation's second LTE license in January 2015, securing permission to use 2x10MHz of 1800MHz spectrum. Under the terms of the pact with Huawei, the Chinese vendor will also upgrade Orange's 2G and 3G services.

(March 26, 2015) telegeography.com

According to latest Jordanian Telecommunications Report Q2 2015 prepared by Business Monitor International, the Jordan's telecoms operators look set to remain under intense financial pressure over our five-year forecast, as they will be buffeted by macroeconomic and industry-specific challenges. Strong competition has also played a role, with ARPUs falling across the board in the first nine months of 2014. Increased taxes on telecoms revenues have been a major factor in operator revenue declines and the government is not inclined to reduce taxes or reinstate subsidies given its weak fiscal position. In this set of circumstances, network operators must find new ways to generate revenue and reduce operating expenses. Zain launched Jordan's first 4G LTE network in February 2015 and Orange is likely to launch its network within 2015. BMI believes that stronger macro outlook and historical 3G user base growth shows that 4G adaption too will be strong.

### Key Data

Jordan's mobile market grew by 1.6% in the year to September 2014, but contracted by 1.1% q-o-q. Mobile ARPU continued its downward trend, with mobile operators Zain and Orange both reporting continued decline in H114.

The pace of decline in the fixed-line sector slowed down Q314, with period q-o-q numbers unchanged and yearly losses accounting to 3219. The internet sector continues to show high y-o-y growth up by 15.1% in Q314, although there has been fluctuation in dedicated data subscriptions. (March 2, 2015) clickpress.com

## Kuwait



**Chairman/CEO: H.E. Salim M.r Al Ozainah**

[Communication and Information Technology  
Regulatory Authority (CITRA)]

Zain Kuwait and equipment vendor Huawei Technologies have entered a new strategic cooperation deal which will see the two companies trial and implement 4.5G services on Zain Kuwait's network over the next three years. The announcement follows the inking of a Memorandum of Understanding (MoU) between Zain Group and Huawei during the Barcelona Mobile World Congress to pilot new solutions with Huawei using 4.5G standards including radio access networks (RAN) and network virtualization architecture. Zain Kuwait CEO Omar Al-Omar said: 'As the largest operator in the country offering nationwide 4G services, we recognize that to meet our customers' ever-increasing demand for data, we need to continually invest in network upgrades for the future prosperity of the company and the wider economy at large. Cooperating with Huawei in the piloting of, and eventual roll-out of 4.5G services, will ensure that Zain Kuwait remains at



the forefront of technology, providing our customers with a superior telecom experience.' Meanwhile, Zain Kuwait has awarded a Business Support Systems (BSS) transformation project to Sweden's Ericsson, which will allow its subscribers to benefit from the advantages of a fully integrated and convergent environment with higher level of flexibility and shorter time-to-market for new and updated offerings. (March 3, 2015) [telegeography.com](#)

## Morocco



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

The country's main mobile operators, Maroc Telecom, Meditel and Inwi, have won last week licenses enabling them to operate 4G services. In an article about the economic impact of introducing 4G services in Morocco, OBG said that telecom operators' turnover is expected to climb quickly once 4G services are launched. 4G services will "open the door to critical new revenue streams for a sector that is nearing subscriber saturation," it added. OBG sees that the transition to 4G technology in Morocco will be necessary to harness growing demand for data services and increase sector turnover. Quoting a March report from the Directorate for Studies and Financial Forecasting (DEPF), OBG said that mobile providers in more developed telecoms were able to achieve average revenue per user seven to 20 times higher with 4G than with 3G. The consultancy firm believes that 4G transition is expected to have a notable impact on the country's economy as a whole. It quoted a study by Cisco and Deloitte indicating that each doubling of the volume of mobile data usage adds approximately 0.5 per cent to GDP. Three telecom operators Maroc Telecom, Medi Telecom and Wana Corporate have won licenses for 4G technologies in an auction that raised 2 billion dirhams (\$200 million), the ANRT said last week. Maroc Telecom, majority owned by the UAE's Etisalat, won the most sought-after radio frequencies, paying 1 billion dirhams, while French group Orange's local affiliate Medi Telecom (Meditel) and Wana Corporate paid 500 million dirhams each, the agency said. (March 27, 2015) [moroccoworldnews.com](#)

Telecoms regulator ANRT has announced that it had awarded three 20-year Long Term Evolution (LTE) licenses to the country's mobile operators – Itissalat Al Maghrib (IAM, Maroc Telecom), Inwi (Wana) and Medi Telecom (Meditel). Maroc Telecom, majority owned by United Arab Emirates (UAE)-based Etisalat, paid MAD1 billion (US\$99.93 million) for frequencies in the 800MHz (to be allocated in two stages), 1800MHz and 2.6GHz bands, French group Orange's local affiliate Meditel paid MAD500.437 million, while Wana paid MAD503.000 million. The allocated spectrum is listed as follows:

- Meditel (License A): 796MHz-801MHz/837MHz-842MHz (Phase 1); 791MHz-801MHz/832MHz-842MHz (Phase 2); 1775MHz-1785MHz-1870MHz-1880MHz; and 2540MHz-2560MHz/2660MHz-2680MHz;
- Maroc Telecom (License B): 801MHz-806MHz/842MHz-847MHz (Phase 1); 801MHz-811MHz/842MHz-852MHz (Phase 2); 1725MHz-1735MHz/1820MHz/1830MHz; and

2520MHz-2540MHz/2640MHz-2660MHz; and

- Wana (License C): 806MHz-811MHz/847MHz-852MHz (Phase 1); 811MHz-821MHz/852MHz-862MHz (Phase 2); 1750MHz-1760MHz/18445MHz-1855MHz; and 2500MHz-2520MHz/2620MHz-2640MHz.

In addition, the three operators need to contribute a total of MAD860 million for the re-organization of the spectrum, the ANRT said. The operators are required to establish and operate 4G networks covering 65% of the Moroccan population within five years from the date of license authorizations, and must provide minimum average download speed of 2Mbps for 90% of the population. (March 19, 2015) [telegeography.com](#)

Telecoms regulator ANRT has announced that the country's three mobile operators – Itissalat Al Maghrib (IAM, Maroc Telecom), Inwi (Wana) and Medi Telecom (Meditel) – have all submitted their bids for 4G Long Term Evolution (LTE) mobile licenses. The watchdog disclosed that the submitted applications will now be assessed on the basis of the operators' commitments in terms of infrastructure deployment, coverage, Quality of Service (QoS), consistency of business plan, proposed strategy and financial offer. ANRT began preparing for the 4G licensing process in 2012 by launching a tender to select an adviser for the process. The watchdog set a deadline of August 23, 2012 for the submission of bids, and the winner's main responsibility was outlined as assisting ANRT with the setting of terms and conditions, including deciding on how many concessions are to be made available. The regulator initially planned to award 4G licenses at the start of 2013 with commercial launches following by the end of that year at the latest, although the tender was subsequently postponed on several occasions. The LTE auction process was finally initiated on November 17, 2014, just days after incumbent operator Maroc Telecom achieved maximum download speeds of 140Mbps over a trial 4G network in Rabat. The bid deadline was subsequently pushed back with two weeks to March 12, 2015. (March 13, 2015) [telegeography.com](#)

Telecom regulator National ANRT has announced that it would launch three tenders – for the establishment and operation of trunked radio networks (3RP), provision of satellite telecommunications services using GMPCS technologies and the provision of telecommunications satellite services using VSAT technology on March 16. The regulator has invited all interested parties to submit their license bids by May 7. (March 4, 2015) [telegeography.com](#)

## Oman



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

Subscribers of fixed phone service in the Sultanate crossed 375,000 in 2014. GSM lines touched more than 6 million, while the number of subscribers in broadband internet rose to reach more than 2.8 million. The latest statistics issued by the National Centre for Statistics and Information (NCSI) pointed out that subscribers of fixed phone service in the Sultanate stood at 375,196 at the end of 2014 against 351,411 subscribers at the end of





2013, constituting a rise of 6.8 per cent. Subscribers of pre-paid fixed phone service (Sahl) stood at 33,066 against 25,829 at the end of 2013, a rise by 2.8 per cent. The billed fixed phone lines stood at 287,995 in 2014, compared to 271,400 in 2013. The number of public phones all over the Sultanate stood at 6,801. The number of integrated services digital networks (ISDN) and the number of fixed wireless lines witnessed a slight decline. Subscribers of billed GSM service stood at 6,194,169 by the end of 2014 against 5,617,426 during 2013, constituting an increase of 10.3 per cent. Subscribers of pre-paid GSM service stood at 5,665,471 at the end of 2014, compared to 5,121,723 by the end of 2013, constituting a rise of 10.6 per cent. The statistics also pointed out that the total subscribers of internet at the end of 2014 stood at 180,144 compared to 158,678 subscribers at the end of 2013. Subscribers of DSL, leased lines and wimax stood at 177,063 at the end of 2014, compared to 154,290 at the end of 2013, a rise by 14.8 per cent. The number of active subscribers of mobile broadband stood at 2,893,561 at the end of 2014 compared to 2,443,296 at the end of 2013, constituting an increase of 18.4 per cent. (March 1, 2015) einnews.com

## Pakistan



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

The Afghan authorities have yet to respond to the Pakistani proposal to find out a way to block the use of Pakistani SIMs in Afghanistan. After realizing that terrorists and criminals were using Afghan SIMs in Pakistan for kidnapping, ransom and other terrorist activities, PTA directed local mobile operators to block roaming of neighboring country's SIMs in Pakistan. The roaming was blocked but in border areas issue sustain, an official said. These SIMs can still be used in border areas due to the spillover of signals, the official said. He said that Pakistan not only wants to settle use of Afghan SIMs in Pakistani areas but also use of Pakistani SIMs in Afghan areas. He said along with solving the current issues Pakistan Telecom Authority is seeking a long-term cooperation mechanism with the Afghan counterpart to proactively solve future issues also. "We want to sign a memorandum of understanding between PTA and Afghan Telecom Authority to cooperate on all security issues, related to telecommunication," the official said. PTA has requested Afghan authorities through Foreign Office but despite passing many months, the authority has not received any response from across the border. In October 2013, during a case proceedings, Peshawar High Court was informed by National Accountability Bureau, Khyber Pakhtunkhwa KPK, that over 40,000 cellphone SIM cards of Afghan telecom companies are operational in Pakistan and most of them were used in acts of terrorism, kidnapping for ransom and extortion. During the proceedings, officials informed that there were two mechanisms through which the Afghan SIM cards had been operating: in some cases, they were activated in Afghanistan and functioned in Pakistan's tribal areas through the signals emanating from Afghanistan and the second category of SIM cards functioned due to the roaming facility given to the relevant Afghan company by a Pakistani mobile phone operator. The reason was stated that after Pakistani cellular companies had pulled out of several tribal areas and, therefore, the people had

been using Afghan SIM cards. The court after hearing the case, issued an order for PTA to end roaming facilities to Afghan cellphone companies within 15 days, observing that in growing number of cases of terrorism and kidnapping for ransom, SIM cards of Afghan companies had been used. Warrants for the arrest of the chief executives of the cellular telecom companies were also issued over their failure to turn up, court, reportedly, said in its decision. Despite an agreement between Pakistani and Afghan companies with prior approval of PTA, the Afghan SIMs were blocked in the country, but Afghanistan did not block Pakistani SIMs. Despite blockage there were still reports that terrorists were using Afghan SIMs in border areas. After Peshawar massacre, last year, the government started biometric verification under National action Plan and re-verified around 70 million Sims in two months. Experts believe that like biometric verification, usage of Afghan SIMs in the country should also be included in the national action plan, and the Afghan government should be approached on highest level. (March 19, 2015) nation.com.pk

GSMA announced the winners of the 20th Global Mobile Awards, which were presented at the GSMA Mobile World Congress in Barcelona. The winners were announced in a ceremony hosted by actor, comedian, writer and film producer John Cleese. The Global Mobile Awards are judged by more than 300 independent experts, analysts, journalists, academics, and in some cases, mobile operator representatives. This year the 'Spectrum for Mobile Broadband Award' was presented to the Government of the Islamic Republic of Pakistan and the award was received by the Minister of State for Information Technology and Telecommunication, Ms. Anusha Rahman Khan. The GSMA recognized the government of the Islamic Republic of Pakistan in the mobile industry's prestigious Government Mobile Excellence Awards, which honor governments' significant achievements in driving growth in the use of mobile services and maximizing the socio-economic impact of the mobile industry in their respective countries. Pakistan had its successful 3G/4G spectrum auction in April 2014, since then, we have already seen a huge increase in mobile usage. Cell phones are seen as key to actively participating in our community, benefitting people in more than one way. The rapid roll-out of 3G and 4G services is boosting growth and efficiency in all sectors including education, banking, media, health and retailing, as well as being a key enabler for innovative e-services such as e-medicine and e-education in rural and remote areas of Pakistan. The awards were presented as part of the GSMA's annual Ministerial Program at Mobile World Congress. More than 1,200 key government and regulatory representatives from around the world are meeting with industry leaders to discuss specific regulatory issues relating to innovation and development of mobile communications. This year, the Ministerial Program has attracted more than 160 delegations and international organizations, representing all regions. (March 4, 2015) phoneworld.com.pk

Pakistan Telecommunication Authority (PTA) has revealed that 3G operators added 3.3 million users on to their network during January 2015; this addition makes 9.08 million overall counts so far in the country, which are



availing 3G facility. This count of 3G subscribers is likely to grow more with introduction of mobile broadband dongle WiFi devices from telecom operators in coming weeks. 3G and 4G was launched in Pakistan on April 23, last year through a SMRA Auction. Four out of Five Telecom companies got a 3G license (Mobilink, Telenor, Ufone and Zong) while China Mobile's Zong was the only company to win 4G license as well. Fifth company, Warid Pakistan did not participate in the auction.

(March 4, 2015) [thenewsteller.com](http://thenewsteller.com)

## Qatar



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

Sweden can help to set up a Smart City in Qatar, ambassador Ewa Polano has told the Minister of Municipality and Urban Planning HE Sheikh Abdulrahman bin Khalifa bin Abdulaziz al-Thani. During a meeting this week, the Swedish envoy invited the minister to visit Sweden, its SymbioCity, Hammarby Sjostad, and meet engineers who can help set up a Smart City in Qatar. For Swedish engineers and construction companies who would like to come and do a presentation "the door is always open," the Minister responded, according to a statement issued yesterday by the Swedish embassy. Ambassador Polano talked about Swedish innovation and entrepreneurship and the dream to open, at Education City or Qatar University, a Swedish Innovation Centre for Research & Development. Swedish company Ericsson's 'Networked Society' was also discussed as part of a pilot project to a Smart City to be developed in Qatar. (March 19, 2015) [zawya.com](http://zawya.com)

The Communications Regulatory Authority (CRA) marked World Consumer Rights Day by launching its official Twitter account - @CRAqatar - in an initiative to provide an additional communications channel for consumers to address their grievances against service providers. CRA also announced plans to conduct regular audits about the status of customer complaints being handled and to launch a new satisfaction survey for business consumers. Quality of service has always been a key area of focus for CRA and an industry consultation is slated to be launched in the coming days to ensure that the stakeholders are engaged to make this document more comprehensive and forward-looking, according to a statement. While registering complaints or concerns about service providers, consumers will now be able to tweet directly to CRA's Consumer Affairs Department. This will enhance the current channels, which include the 24/7 telecom hotline - 103, e-mail, fax, website and CRA's mobile app - Arsel. "As we have seen with the consistent usage of Arsel, social media seems to be the preferred communication channel for consumers. By creating a dedicated Twitter account, consumers will hopefully find it even more convenient to contact us to help resolve their pending complaints," said Amel Salem al-Hanawi, consumer affairs manager. "We are compiling the results of the recent consumer satisfaction survey and will be sharing the results in the next few weeks. Soon, we will launch a satisfaction survey targeted at business consumers. Together, the findings of these two surveys will help us adjust our strategies accordingly," she added. Investigating unresolved complaints against service providers is a key consumer protection initiative

by the Consumer Affairs department. On average, the Complaints Section receives about 100 complaints every month against both service providers. Ranging from disconnections, billing, network coverage to other issues, each complaint is investigated and a mutually acceptable resolution is obtained, working with the service provider concerned, the statement added. The Consumer Affairs department now plans to share the results of the unresolved complaints with the public. "Service providers are usually co-operative in resolving pending complaints. However, to make the process transparent to the rest of the telecom consumers and industry stakeholders, we plan to publish the trends of complaints received on the CRA website annually," said al-Hanawi. The CRA booth at Landmark Mall featured several awareness-raising activities for consumers and activities for children to mark the Consumer Rights Day. The young visitors to the booth were enthralled by the star attraction - an 8ft robot - while their parents were eagerly discussing their concerns, and even compliments, related to their service providers. The CRA team also conducted several awareness sessions and brief workshops at the booth to make consumers more aware about their rights and obligations, as well as to provide tips on interesting topics such as how to reduce roaming charges. Consumer Affairs is now finalizing new updates to Arsel, launched during World Consumer Rights Day last year, to make the app more user-friendly and provide a new experience to the users. Arsel will soon have its own website, too. (March 16, 2015) [gulf-times.com](http://gulf-times.com)

Qatar-based Ooredoo Group has reported that its consolidated revenue for the twelve months ended 31 December 2014 decreased by 2% to QAR33.207 billion (US\$9.110 billion), down from QAR33.851 billion posted in FY 2013 as it highlighted strong financial performance in Qatar, Oman and Algeria, offset by challenging market conditions in Iraq, Kuwait, Tunisia and Indonesia. Group annual EBITDA fell by 11.6% to QAR12.948 billion with EBITDA margin decreasing by four percentage points to 39% largely due to ongoing strategic investments across the Ooredoo international footprint in broadband networks, customer acquisition/retention efforts and global rebranding (as the Ooredoo brand has now been adopted by seven operators in Qatar, Algeria, Maldives, Tunisia, Myanmar, Kuwait and Oman). Other factors affecting EBITDA were identified as: aggressive price competition in Iraq, Myanmar start-up costs, Indonesian currency depreciation and the Iraqi security situation. Excluding the impact of Indonesian foreign exchange (FX), Myanmar start-up costs and one-off customer acquisition costs in Algeria, EBITDA would have decreased by 5% compared to the reported 12% reduction. Consolidated net profit attributable to Ooredoo shareholders for 2014 was QAR2.134 billion, down from QAR2.579 billion in 2013. As of December 31, 2014, Ooredoo Group's consolidated customer base stood at 107 million, up by 12% from 96 million reported at end-2013, driven by the Indonesian, Iraqi, Kuwaiti, Myanmar and Algerian markets. FY 2014 data revenue represented 25% of total group turnover due to Ooredoo's strategy to increase smartphone penetration and focus on bundles and data offers, plus the expansion of 3G/4G mobile networks, with LTE infrastructure now deployed across five out of the group's ten cellular markets. Algeria, Iraq, Qatar and Tunisia are all markets where Ooredoo claims to be the market leader in data



customer share. The Qatari firm also reported that it generated more than QAR4.5 billion in business-to-business (B2B) revenues in 2014 as its B2B customers increased by 25% during the year. Ooredoo Qatar posted an 8% rise in annual revenue to QAR7.148 billion (FY 2013: QAR6.590 billion) on 10% customer growth to 3.2 million, driven by mobile services, broadband, 'mega-projects' and device sales. Qatari-only EBITDA increased by 5% to QAR3.448 in FY14 and domestic net profit jumped 40% to QAR1.919 billion due to the higher EBITDA and sale of investments. Elsewhere this week, Ooredoo joined the SEA-ME-WE-5 international submarine cable consortium, which will launch a new high speed undersea route linking the Middle East with South East Asia and Western Europe in 2016. The SEA-ME-WE-5 landing station in Qatar will be managed by Ooredoo Global Services (OGS). Ooredoo is also part of the AAE-1 consortium cable linking Asia, Africa and Europe (also ready for service in 2016).

(March 11, 2015) telegeography.com

## Saudi Arabia



**Governor: Eng. Abdullah A. Al Darrab**  
[Communication & Information Technology Commission (CITC)]

Saudi Arabia's market regulator is investigating possible insider trading in shares of telecommunications operator Mobily relating to its shock earnings restatement, the watchdog said on its website. The Capital Market Authority (CMA) launched an investigation into Mobily in November after the firm slashed its profits for 2013 and the first half of 2014 by a combined \$381 million, citing accounting errors. Mobily's woes deepened last week when its audited results revealed it made a \$243 million loss last year, not a small profit as previously announced, prompting the regulator to suspend its shares. The CMA's preliminary probe [into the company's earnings releases] "ended in the suspicion" that Mobily had violated one of its listing rules and two articles of the Capital Market Law, according to the website statement. The listing clause states that once a company's directors approve its financial results, these must not be revealed to shareholders or third parties prior to official release. The first article of the law referred to by the CMA prohibits various activities. These include creating "a false or misleading impression" relating to the price or value of a stock, trading securities that do not involve a true transfer of ownership and trading a stock to induce third parties to do likewise. It also warns against buying or selling a stock to stabilise its price. The second clause prohibits trading on inside information not publicly available and that which the insider knows "would have a material effect on the price or value of such (a) security". The CMA added it has established a team to review Mobily's financial statements and related documents, conduct site visits and hear "all concerned parties' statements". Mobily 27.5 percent owned by Abu Dhabi-listed Etisalat, did not immediately respond to requests for comment, although it said in a bourse statement on Monday it was "committed to fully cooperate with the relevant authorities ... that ensures the protection of the company and its shareholders' interests". About \$9 billion has been wiped from Mobily's market value since its Nov. 3 earnings restatement -- the stock's closing price prior to that announcement was 79.75 riyals,

while its most recent close on Feb. 24 was 35.30 riyals. The stock also fell ahead of Mobily's earnings release, dropping 8.3 percent in three days to Oct. 29 before the stock was suspended at the company's request.

(March 3, 2015) reuters.com

## South Sudan



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

South Sudan has joined an initiative that allows mobile users to make calls between the country and Kenya, Uganda and Rwanda at local rates. During the launch of the regional network last week, South Sudan's Minister of Telecommunication and Postal Services Rebecca Joshua Okwachi said that the 'one network' scheme will considerably reduce the cost of making telephone calls and encourage an increase in trade and investment within East Africa. (March 2, 2015) StarAfrica

## Turkey



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

Telecoms regulator Bilgi Teknolojileri ve İletişim Kurumu (BTK) has supplied further details regarding its planned multi-band spectrum auction, setting the combined floor price for the licenses on offer at EUR2.298 billion (US\$2.433 billion). 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. Winning bidders will be permitted to purchase the frequencies outright, or in four, six-monthly installments, plus interest. The auction is scheduled to take place in May 2015. Alongside incumbent trio Turkcell, Vodafone Turkey and Avea, a block of 2600MHz spectrum will also be reserved for a new market entrant, although there will be no obligation for the newcomer to introduce GSM services. The government hopes that the cellcos will launch commercial services by end-2015 and extend 4G coverage to 90% of the population within six years. (March 19, 2015) telegeography.com

Telecommunications regulator announced a minimum reserve price of EUR 2.3 billion for 4G spectrum licenses. The Information and Communication Technologies Authority will tender a total 390 MHz in the 800, 900, 1,800, 2,100 and 2,600 MHz bands in the auction. The successful bidders may pay for the licenses in a single payment or in four installments every six months, plus interest, according to a decree from the cabinet published in the Official Gazette. Transport and Communication Minister Lutfi Elvan said earlier in March that the aim is for at least 90 percent of the population to have 4G coverage within six years. The license tender should be completed by the end of May, and the 4G services should start by the end of this year. In addition to the three existing operators Turkcell, Vodafone and Avea, the country aims to attract a fourth network operator in the auction. The fourth operator will be able to bid only for the 2,600 MHz band, but will be free from other operating obligations applied to the existing operators, the minister said. (March 18, 2015) Daily Hurriyet





Minister of Transport and Communications, Lutfi Elvan revealed that the government expects to stage a multi-band spectrum auction in May this year, paving the way for the introduction of commercial 4G Long Term Evolution (LTE) Technology by year-end. Frequencies in the following spectrum bands will go under the hammer: 800MHz, 900MHz, 1800MHz, 2100MHz and 2600MHz. Alongside incumbent trio Turkcell, Vodafone Turkey and Avea, a block of 2600MHz spectrum will also be reserved for a new market entrant, although there will be no obligation for the newcomer to introduce GSM services. The government hopes that the cellcos will extend 4G coverage to 90% of the population within six years. Meanwhile, Turkcell, the country's largest mobile service provider in terms of subscribers, has repeated claims that it is ready to launch 4G technology immediately, with CEO Ilker Kuruoz commenting: 'At Turkcell, we had started working on future-proof technologies many years ago. We have kept our readiness levels very high for 4G by investing in our network, expanding our fibre backbone and launching our own-branded 4G smartphone, the Turkcell T50. [The] announcement by the Ministry confirms that we have taken the right steps at the right time.' Both Avea and Turkcell have played an active role in trialing 4G technology. Avea achieved downlink speeds of up to 300Mbps in an LTE-Advanced (LTE-A) trial staged in April 2013, while Turkcell successfully conducted an LTE-A test in Istanbul in August 2013, achieving downlink transmission speeds of 891.6Mbps. While details of its tests are less clear, Vodafone has also expressed a strong interest in deploying LTE, asserting that it is 'ready to transition to 4G'. (March 5, 2015) [telegeography.com](#)

## United Arab Emirates



**Director General: H.E. Hamad Obaid Al Mansoori**

[Telecommunication Regulatory Authority (TRA)]

The Telecommunications Regulatory Authority (TRA) of the United Arab Emirates (UAE) has once again confirmed that voice-over-internet protocol (VoIP) services are only permitted if offered by, or under agreement with, one of the country's two licensed telcos, Etisalat and Du. The regulator's statement comes in the wake of an international launch of voice connectivity for users of the messaging application WhatsApp. Local news site Emirates 24/7 has revealed that Etisalat has already begun blocking WhatsApp voice calls, while Du is expected to follow suit soon. The TRA issued a similar statement of clarification last September after complaints that VoIP services such as Skype and Viber were being scrambled by the two UAE telcos. The UAE has a large expatriate community, and the large amount of international voice traffic generated by the foreign nationals is an important source of income for state-backed Etisalat and privately-owned operator Du. (March 17, 2015) [telegeography.com](#)

Telecommunications Regulatory Authority (TRA) has decided to set up a new Centre of Excellence in the country as it plans to train staff from across the Mena region with regard to telecommunications policy and regulatory capacity building. A Memorandum of Understanding (MoU) was signed with this regard with the GSM Association (GSMA) during the just concluded

Mobile World Congress in Barcelona. The agreement recognizes the active role of the organization as the organization responsible for delivering advanced broadband connectivity and mobile phone services, in addition to encouraging a long-term commitment by governments to market-driven competition and private sector investment in the mobile communications sector. According to the TRA, the Centre will provide TRA employees, regulators and policymakers from across the region with practical tools and best practices with the goal of creating an environment that encourages competition and investments in telecommunications in the UAE and across the region. Hamad Obaid Al Mansouri, TRA Director General and Tom Philips, GSMA Chief Regulatory Officer, signed the MoU on the second day of Mobile World Congress in Barcelona. "We are pleased to collaborate with GSMA to develop a positive telecommunications regulatory environment in the UAE in particular and across the region in general," said Al Mansouri. The Centre of Excellence will be located at the UAE Telecommunications Regulatory Authority's state-of-the-art facilities in Dubai and courses will be delivered either on-site or via online facilities. (March 3, 2015) [emirates247.com](#)

The TRA recently hosted a workshop on "Developing Smart Data Strategy" at its headquarters in Dubai. The event was attended by 15 federal and local government entities and was designed to educate and inform participants on how to develop solutions that can effectively analyze and store vast amounts of data while making best use of it for mobile platforms. In addition, the TRA carried out a survey amongst several government entities prior to the workshop to collect feedback on challenges that these organizations face around data management, storage and issues related to data sharing and privacy. The TRA team shared best practices to address these concerns while laying out strategies that will help entities collect and share data in order to enhance the efficiency of government services. Hamad Obaid Al Mansoori, TRA Director General said, "Developing a smart data strategy is one of the major initiatives included within the national mGovernment transformation project. It aims to enhance the efficiency of data usage and workshops such as this are a vital platform to share ideas and knowledge as the UAE transitions into a smart government." "Our aim is to also enhance cooperation efforts between government entities to enable seamless and unified sharing of best practices. This in turn will allow us to develop strategies together that can harness the potential of data to develop effective strategies that support the directives laid out in UAE Vision 2021 and the vision of our wise leadership in building a smart nation." Suleman Bakhsh, Project Manager for Smart Government Big Data Project said: "The workshop was a good venue to discuss and align expectations with our colleagues from government entities. The workshop highlighted the current strategy work and the strategic priorities which is directly mapped to the Smart Government National Plan priorities. Smart Data project, will bring value and enable future possibilities to all, which will be positively reflected on the quality of services provides to end customers." (March 3, 2015) [tra.gov.ae](#)



## ▼ REGULATORY ACTIVITIES BEYOND THE SAMENA REGION

### REGULATORY UPDATES

#### Albania



Albanian telecoms regulator the Authority of Electronic and Postal Communications (AKEP) has approved the allocation of 1800MHz licenses to Albanian Mobile Communications (AMC), Vodafone Albania and Albtelcom/Eagle, for the provision of GSM/UMTS/Long Term Evolution (LTE)/WiMAX services. Each of the trio was granted access to 2x6MHz of spectrum. AMC paid EUR4.513 million (US\$4.941 million) for its concession whilst Albtelcom entered a bid of EUR4.500 million and Vodafone EUR3.400 million. In a related development, AKEP has opened a tender for 900MHz spectrum for GSM services. Four blocks of spectrum are on offer, each consisting of 2MHz of spectrum, with a minimum bid of EUR200,000 per block. Prospective bidders have until April 8, 2015 to submit their offers. The watchdog has also initiated a public consultation on the potential use of spectrum in the 1900MHz-1980MHz/2110MHz-2170MHz range for mobile services. AKEP is considering allocating two licenses, one of 2x10MHz (1970MHz-1980MHz/2160MHz-2170MHz) and one lot of 5MHz (1915MHz-1920MHz) and is inviting opinions of the public and industry stakeholders.

(March 26, 2015) telegeography.com

Albanian incumbent Albtelcom, which offers wireless services under the Eagle Mobile banner, has acquired a license to offer Long Term Evolution (LTE) services and is preparing to launch the service nationwide, the company said in a press release. Albtelcom CTO Murat Cakmak noted that all of Eagle's sites are connected through a fiber-optic network, providing the network with much greater backhaul capacity. The official added: 'This creates a significant advantage for us. Our subscribers will be able to experience much higher speeds and far better quality with the 4G technology, as fiber-optic [links] will be a must in offering quality 4G services.' Albtelcom is expecting to offer LTE services with peak download speeds of around 150Mbps. The operator is understood to have won 2600MHz 4G spectrum in the regulator's auction in late February 2015, although the watchdog has yet to make a formal announcement naming the winners.

(March 10, 2015) telegeography.com

#### Australia



The Australian Competition and Consumer Commission (ACCC) has published its draft decision on non-price terms for regulated services, with this including proposed connection



charges for fixed line services. As per the regulator's draft ruling, it has put forward a targeted set of non-price terms which 'focus only upon those aspects of access where commercial agreements are less likely to ensue and where specific competition concerns are likely to arise'. These non-price terms, it has noted, cover commercial and operational matters, such as billing and notification, general dispute resolution processes, and some ordering and provisioning processes for certain regulated services. With the draft decision continuing to set regulated charges for the connection of fixed line services, the ACCC said that connection charges were an unavoidable cost of providing voice and broadband services to end-users using Telstra's copper network. It has, however, said that most of the draft connection charges are lower than current rates, reflecting efficiencies achieved by the fixed line incumbent in the way that it manages external contractors undertaking connections work. Meanwhile, the ACCC said it had not received evidence of widespread competition concerns that were significant enough to warrant a more comprehensive approach to setting regulated non-price terms of access. However, on the back of a review of access agreements the watchdog said it was concerned that some commercially negotiated agreements may include clauses that could exclude the application of future regulated terms during the life of such contracts. On this matter, ACCC commissioner Cristina Cifuentes noted: 'We are currently working constructively with an access provider to provide for terms that will give an opportunity to access seekers to seek regulated terms either at the end of a two year contract period or with six months' notice, along with specific commitments to negotiate in good faith in relation to regulated terms.' The ACCC has said it will continue to monitor industry developments to see if regulated terms are being made available to access seekers, adding that it may consider further action if concerns remain. A consultation on the proposals has now been launched, with the inquiries seeking to determine regulated prices and non-price terms that will apply when access providers and access seekers cannot reach agreement through commercial negotiations. As such, the ACCC is seeking submissions on its draft decision on non-price terms for the regulated services and connection charges for fixed line services by April 17, 2015. Subsequently, the ACCC intends to publish final decisions on non-price terms for the regulated services and on connection charges (as part of the fixed line services final access determination on primary prices) in late June 2015.

(March 25, 2015) [telegeography.com](http://telegeography.com)

## Belgium



The Belgian Institute for Post and Telecommunications (BIPT) has announced that cellular operators Proximus and Mobistar have agreed a plan covering slight changes to their 900MHz spectrum allocations. Last year, the two cellcos – along with third operator BASE – had their 900MHz licenses renewed, with effect from November 2015. While the providers had applied for their original frequency assignments, there were minor alterations to the guard bands. Belgacom's mobile unit Proximus and Mobistar, which is backed by Orange of France, have now agreed a two-stage plan covering the spectrum moves, ignoring the BIPT's proposed four-step plan. Spectrum belonging to BASE was not affected by the moves.

(March 17, 2015) [telegeography.com](http://telegeography.com)

Telecoms regulator, the Institut Belge des services Postaux et des Telecommunications (BIPT), has opened a tender

for wireless broadband spectrum in the 3.5GHz band (3410MHz-3500MHz and 3510MHz-3600MHz). A total of four packets of frequencies are for sale, comprising two lots of 2x20MHz, plus two lots of 2x25MHz. Each bidder can acquire up to two lots. 3.5GHz spectrum has already been allocated on a regional basis in Belgium to three firms Gigaweb, Mac Telecom and b.lite with the existing licensees eligible to bid for spectrum in areas where they do not already hold concessions.

(March 11, 2015) [telegeography.com](http://telegeography.com)

## Brazil



National telecoms regulator ANATEL has published updated information regarding the addition of a ninth digit to mobile numbers. The states of Pernambuco, Paraiba, Rio Grande do Norte, Ceara, Piaui, Minas Gerais, Bahia and Sergipe are now scheduled to gain an extra digit by December 31, 2015, while a further nine states will receive the addition by the end of 2016. Eight-digit dialed calls will be supplemented for a transition period, during which users will receive messages with guidance on the new way of dialing. The states of Amapa, Amazon, Maranhao, Para and Roraima have most recently seen their mobile numbers expanded, with effect from November 2, 2014. ANATEL began implementing an additional ninth digit in July 2012, in a move which then affected 64 municipalities, including state capital Sao Paulo. The regulator had been aware of the problem of exhausting number capacity since 2008 and says the move to nine numbers doubles the limit to over 80 million. (March 26, 2015) [telegeography.com](http://telegeography.com)

Agencia Nacional de Telecomunicacoes (ANATEL) has ended its standoff with mobile duo TIM Participacoes (TIM Brasil) and Oi SA, extending their respective 1800MHz 2G licenses from 2016 until 2017. Going forward, in 2017 the duo are expected to be charged BRL1.5 billion (US\$526.9 million) each in a formal renewal process. ANATEL officials have blamed the long-running confusion over the licenses on a 'regulatory vacuum,' adding that it would likely have a negative impact on consumers if it were to stage a tender in the short term. The duo failed to file for 2G license renewals by the March 13, 2013 deadline – a full three years before their concessions were actually due to expire – and subsequently found themselves in regulatory hot water. If the pair had been stripped of their respective 1800MHz frequency permits, as previously feared, upwards of 50 million 2G subscribers could have been affected.

(March 2, 2015) [Teletime](http://Teletime)

## Bolivia



Telecoms regulator ATT has revealed that it plans to implement mobile number portability (MNP) next year. Luis Felipe Guzman, executive director of the ATT, was quoted as saying: 'We estimate that within a year we will be able to put everything into effect for number portability.' A feasibility study is currently being carried out, and the government is preparing to launch a tender to find a company to manage the number portability system. Bolivia was home to an estimated 10.5 million mobile subscribers at the end of 2014. (March 19, 2015) [TeleSemana](http://TeleSemana)

Bolivia's Autoridad de Regulacion y Fiscalizacion de Telecomunicaciones y Transportes (ATT) has revealed that it is looking to implement mobile number portability (MNP). Discussions with the country's three cellular network operators – Entel, Tigo and Viva (NuevaTel) –





have been ongoing since 2012, an announcement on the subject could be made within the next 15 days. Bolivia was home to an estimated 10.5 million mobile subscribers at the end of 2014. (March 11, 2015) TeleSemanal

## Cameroon



Cameroon will renew the operating license of South African mobile communication group MTN and give the group a third generation (3G) license for 125 million US dollars, industry sources said. The two leading operators in Cameroon - MTN and its rival Orange, a subsidiary of France's Orange - have been locked in negotiations with the government over the renewal of their licenses and clearance to offer 3G services. Cameroon's Minister of Post and Telecommunications said in a statement the government would hold a signing ceremony with MTN in Yaounde, but did not provide further details. Sources said Cameroon had demanded and got 75 billion CFA Francs (125 million US dollars) each from both operators to renew the licenses. The sources said Orange was also expected to sign a renewal deal soon. Cameroon's third mobile operator Nexttel, owned by Vietnam's Viettel Group, a state-owned mobile network operator wholly owned by the Ministry of Defense, received approval to offer 3G services when it launched last year. The approval of 3G services could boost Internet penetration in Central Africa's biggest economy and spur growth in the online business sector. Just 6 percent of Cameroon's population has internet access, among the lowest in Africa, despite having more than 16 million mobile phone subscribers. (March 12, 2015) cnbcafrica.co

## Canada



Industry Canada concluded the auction of 'AWS-3' 3G/4G wireless spectrum licenses, with five companies picking up a total of 39 regional license blocks in the 1755-1780MHz / 2155-2180MHz paired bands for a combined price of over CAD2.1 billion (US\$1.67 billion). In each region, a 2x15MHz 'Set-Aside Block' was reserved for smaller mobile players (excluding Rogers Communications, Telus Communications and Bell Mobility) while a further 2x10MHz of spectrum was available in each region via open bidding. Telus Communications invested the most in the auction, bidding CAD1.511 billion for 15 AWS-3 licensed blocks covering a population of 30.077 million. Rival nationwide operator Bell Mobility bought 13 license blocks costing CAD499.9 million, representing a population footprint of 13.490 million. Wind Mobile spent highest among the newer entrants, purchasing three AWS-3 blocks for CAD56.4 million, covering a population of 18.141 million in Southern Ontario, British Columbia and Alberta. Videotron bought four blocks for CAD31.8 million, representing a 9.890 million population footprint in Quebec and Eastern Ontario. Eastlink (Bragg Communications) bought four licenses in Atlantic Canada and Northern Ontario (covering 3.101 million people) for CAD9.957 million. In three regions, the Set-Aside Blocks went unsold, namely: Saskatchewan and Manitoba (where Telus picked up the open-bid blocks), and the Far North - Northwest Territories / Yukon / Nunavut (where Bell claimed the open-bid blocks). Rogers Communications, Canada's largest cellco by subscribers, did not win any AWS-3 frequencies. Neither did indebted smaller cellco Mobilicity, and following the auction results Mobilicity's original backers Quadrangle and Data & Audio-Visual Enterprises (DAVE) have

reportedly relaunched a CAD1.2 billion court case against the federal government, alleging that promises made to encourage the plaintiffs to invest in Canada's wireless sector were broken. As a reminder, in Canada's previous 4G 700MHz spectrum auction in February 2014, Rogers took the biggest spoils, buying 22 paired licenses for CAD3.292 billion; Telus spent CAD1.143 billion on 700MHz concessions; and Bell paid CAD565.7 million for its 700MHz frequencies. Of the smaller players, Videotron spent CAD233.3 million in the 700MHz license sale, followed by Eastlink (CAD20.3 million), Manitoba Telecom Services (MTS, CAD8.8 million) and Saskatchewan Telecommunications (SaskTel, CAD7.6 million). Industry Canada's next spectrum auction - for Broadband Radio Service (BRS) licenses in the 2500-2690MHz band - will open on 14 April 2015. Eleven applicants have been qualified for the 2500-2690MHz contest, namely: Rogers, Telus, Bell, Wind, Videotron, Eastlink, MTS, TBayTel, Xplornet Communications, Corridor Communications (CCI Wireless) and SSI Micro (affiliated to companies including Northern Broadband, Northern Space Link, Broadsky Communications, SSI Connexions and others). (March 9, 2015) telegeography.com

## China



Telecoms authority the Ministry of Industry and Information Technology (MIIT) has awarded the long-awaited Frequency Division Duplex Long Term Evolution (FDD-LTE) licenses to China Unicom and China Telecom. The regulator had issued concessions for rival 4G platform and home-grown technology Time Division (TD)-LTE in December 2013, but Unicom and Telecom opted instead to use the FDD standard as the mainstay for their 4G networks. Both providers were given permission to roll out some FDD/TD-LTE hybrid networks on a limited basis in 2014, originally restricted to just 16 cities but gradually extended to cover 56 cities. Whilst Unicom and Telecom have been waiting to receive permissions for their preferred 4G technology, market leader China Mobile has stormed ahead, rolling out more than 700,000 TD-LTE base stations and signing up 106.8 million 4G subscribers by the end of January 2015. The early mover advantage has strengthened China Mobile's position in the market, pushing the sector towards a de-facto monopoly. Subscriber growth has slowed across the board, but has been pronounced for Unicom and Telecom, with the latter recording its first fall in subscription in mid-2014. The disparity between Mobile and its two smaller competitors gave rise to rumors earlier this year that the government was planning to merge Unicom and Telecom to create a single entity that could compete on a more level playing field with the wireless behemoth: China Mobile represents more than 60% of the Chinese mobile market, is the largest cellco in the world by subscribers, and in Q4 2014 overtook US provider Verizon to become the largest 4G provider in the world. (March 2, 2015) telegeography.com

## Denmark



The Danish Ministry for Business and Growth has announced a new bill for mandatory telecom merger filings, the Nordic Competition Blog reports. According to the new legislation, the Danish Business Authority (Erhvervsstyrelsen) must be notified of all mergers between telecom operators, if the turnover of the undertakings involved exceeds DKK900 million (US\$128.60 million). If the Business Authority finds that



the merger is affiliated with markets deemed by the authority as having limited competition, the deal would be forwarded for further investigation to the Danish Competition and Consumer Authority (DCCA, known locally as Konkurrence- og Forbrugerstyrelse), in line with the Danish Competition Act (Consolidation Act No. 700 of 18 June 2013). The amendment bill is expected to come into force by July 1, 2015. (March 11, 2015) telegeography.com

## Ecuador



Ecuador's new Agency for Regulation & Control of Telecommunications (ARCOTEL) has been formed, following last month's passing of the new Telecommunications Act by the National Assembly. ARCOTEL, an institution integrating the functions of management, regulation and control of telecommunications and radio spectrum, was established by combining functions of existing regulatory bodies Superintendencia de Telecomunicaciones (Supertel), Secretaría Nacional de Telecomunicaciones (SENATEL) and Consejo Nacional de Telecomunicaciones (CONATEL). The new authority will regulate the sector in conjunction with the Ministry of Telecommunications & Information Society. In ARCOTEL's first working session Ana Proano De La Torre (previously Secretary of Telecommunications) was appointed Executive Director of the Agency, who according to the text of the Telecommunications Act, will be solely responsible for authorizing changes in ownership of the shares of telecoms service providers and 'agreements or contracts that affect the operation or actual control over the company or the process of decision making', among other functions. (March 9, 2015) Telesemana

## European Union



European policy makers are set to debate this week new proposals laying out the concept of net neutrality, which in their present form, could allow telecommunications companies serving Europe more leeway in striking deals over Internet service than their U.S. counterparts. The latest proposals by Latvia, which currently holds the rotating presidency of the council of the European Union, outline net neutrality in Europe should ensure similar traffic across networks is treated equally by telecoms operators. But telecom operators will also be "free to enter into agreements" to deliver a better or faster service so long as the Internet connection for the majority of users isn't "impaired" by such deals, according to a proposal document viewed by The Wall Street Journal. The proposals also agree to establish a minimum standard of Internet service and availability that telecom operators will be forced to provide by regulators. The Latvian Presidency has been drawing up policy rules with a number of technical working groups since January on both the subject of net neutrality and on roaming, all as part of a vision to develop regulation for a single telecoms market in Europe. A spokesperson for the Latvian presidency didn't respond on Tuesday to requests for comment on the latest proposals. The preliminary rules will be put to the ambassadors or representatives of EU council member states for a vote on Wednesday. If passed, the proposals will then be debated by representatives of the European Parliament, the European Commission and EU Council in a three-way dialogue over the coming weeks, before eventually becoming law if agreement is reached. EU digital chief Günther Oettinger on Tuesday said he expected new laws on the subject should be agreed in Europe before the summer. The key point was to avoid different laws on net neutrality in the EU's 28 member states, Mr. Oettinger,

the commissioner for the digital economy and society, told a news conference at the Mobile World Congress in Barcelona. "Access to the Internet and neutrality for our consumers is an important goal," Mr. Oettinger said. "The question is how to define special services on top." Telecoms operators in Europe are closely watching legislators in Brussels in the hope that they will agree on freedom for telecom companies to manage the traffic flowing over their networks. "The digitization of European industry will not be possible unless we promote a light-touch approach to net neutrality rules," said Steven Tas, the chairman of the European Telecommunications Network Operators association. Deutsche Telekom Chief Executive Timotheus Hötting on Monday used his opening keynote speech at the Mobile World Congress to call for flexibility in managing Internet data across telecoms networks for services such as health care, connected cars and infrastructure. "We need quality classes to enable all these services," Mr. Hötting said, referring to different sets of Internet quality for different sectors and customers. Net neutrality has become a global talking point in the telecoms and tech industries. The U.S. Federal Communications Commission last week voted that U.S. broadband providers should be regulated as public utilities to prevent telecoms operators putting commercial interests ahead of their obligation to provide Internet to customers. The vote came after President Barack Obama threw his weight behind the concept that all Internet traffic should be treated equally. Net neutrality is expected to be another hot topic later Tuesday at the Congress where U.S. Federal Communications Commission Chairman Tom Wheeler will give a keynote address. (March 3, 2015) wsj.com

## France



Prime Minister Manuel Valls has called on the country's telecoms operators to address the existing gaps in 2G/3G network coverage in rural areas. Mr Valls was cited as saying: 'All white areas should be gone in 18 months. But I wish that we go beyond what was intended by including in the law the obligation for all operators to provide access within the same timeframe, not just to 2G but also to 3G.' The Prime Minister revealed that a total investment of EUR1 billion (US\$1.06 billion) has been earmarked for addressing public services issues in underserved locations. (March 18, 2015) Les Echos

## Germany



The European Commission (EC) has requested that Germany's telecoms regulator, the Federal Network Agency (FNA), amend its mobile termination rates (MTRs) in line with the EU regulatory framework. Following a three-month in-depth investigation, the EC issued a recommendation concluding that the FNA is acting contrary to the EU recommended approach for the calculation of MTRs. In its proposal, the German regulator intends to set an MTR of EUR0.0172 (US\$0.0188) per minute from December 1, 2014, retrospectively, until November 30, 2015, and a rate of EUR0.0166 per minute from December 1, 2015 until November 30, 2016. According to Brussels, if adopted the new rates would be around 80% higher than the rates in the vast majority of member states which follow the recommended approach. The EC has now requested that the FNA withdraw its proposal or to amend it in line with its recommendation; the German regulator has one month to communicate the adopted measure to the Commission. (March 25, 2015) telegeography.com



Liquid Broadband and Telefonica Germany (O2) have submitted separate complaints to the Administrative Court of Cologne regarding the rules of Germany's upcoming spectrum auction, stating that the process is discriminatory and anti-competitive. Liquid Broadband claims that the rules of the auction allow the three incumbent mobile network operators – Telefonica Germany (O2), Telekom Deutschland (TD) and Vodafone Germany – to submit significantly higher bids, thereby shutting out potential newcomers to the market. The firm proposed that part of the spectrum should be set aside for new entrants, but this request was denied by telecoms regulator the Federal Network Agency (FNA). For its part, Telefonica objects to a portion of the auction proceeds being used to subsidize the deployment of fiber-optic broadband in currently underserved parts of the country, stating that this would benefit TD in particular, as the firm would get some of its auction payment back in the form of fiber subsidies. 'This affects the bidding behavior and thus leads to the distortion of competition,' the report quotes Telefonica as saying. In late January the FNA opened the admission procedure for all companies interested in participating in its upcoming auction of spectrum in the 700MHz, 900MHz and 1800MHz frequency bands, setting a deadline of 6 March 2015 for the submission of applications. The sale, which is scheduled to take place during May and June, will feature spectrum in the 900MHz and 1800MHz bands, the current licenses for which expire on 31 December 2016, while Germany will become the first European nation to auction off frequencies in the 700MHz range for mobile broadband, in a move aimed at accelerating the deployment of high speed services in rural parts of the country. Earlier this year, the FNA's Advisory Council agreed that winning bidders must provide mobile broadband of at least 50Mbps (download) to a minimum 97% of all households in each federal state and 98% of homes nationwide. (March 6, 2015) WirtschaftsWoche

## Ghana



Ghana is unlikely to make the previously announced June 17, 2015 deadline for the switchover of analogue broadcasting to digital terrestrial television (DTT), the National Communications Authority (NCA) has confirmed. Speaking at the opening of an international stakeholders' meeting, the regulator's director Henry Kanor commented: 'We are in March. There's no way we can beat this deadline.' Financial constraints have been cited as one of the key reasons behind the delay, and the NCA has yet to reveal a new timeline for the switchover's completion. The digital migration process deadline was originally scheduled for completion in November 2011, in line with a Cabinet decision taken in 2007, but was subsequently pushed back to December 1, 2013 and then June 17, 2015 (the International Telecommunication Union's [ITU's] deadline for analogue switch-off). As of June 17, the ITU will no longer protect countries from cross-border radio spectrum interference from those nations that have completed their migration projects on time. (March 6, 2015) telegeography.com

## Hong Kong



The Communications Authority officially confirmed the award of 2100MHz mobile licenses to the previously announced provisional winners of December's open auction, namely China Mobile Hong Kong, Hutchison Telephone Company (3) and SmarTone Mobile Communications. Final prices for each license remained unchanged from the original announcement in December,

while the regulator confirmed that having obtained bank guarantees for Spectrum Utilization Fees (SUF) totaling HKD2.421 billion (US\$312 million) payable by August 22, 2016, the Authority shall grant the licenses with validity from October 22, 2016. Under approval conditions for the merger of Hong Kong Telecommunications (HKT, part of PCCW) with CSL New World Mobility, the merged company must divest an existing contiguous 2x15MHz spectrum block upon its license expiry in October 2016, leaving the market-leading operator with 2x15MHz in the 2100MHz band while being excluded from bidding on additional re-auctioned spectrum in that range. All incumbents in the band – HKT (including CSL), 3 and SmarTone – accepted rights of first refusal in August 2014 for reassignment of 2x35MHz of the 2100MHz spectrum, while the open auction for the remaining 2x25MHz was held on December 8, 2014 with three participants, SmarTone, 3 and China Mobile Hong Kong. 3 won 2x5MHz at auction, costing US\$60.9 million (meaning it will retain 2x15MHz in the band from October 2016). SmarTone raised its holding in the band by acquiring 2x10MHz at auction for US\$126.5 million (to give it a total of 2x20MHz). China Mobile Hong Kong acquired 2x10MHz in the auction for US\$125.2 million, enabling it to enter the 2100MHz network operating segment from October 2016 onwards. China Mobile Hong Kong had existing arrangements enabling 3G capacity resale via third-party infrastructure, and as an additional condition of the May 2014 PCCW (HKT)-CSL takeover approval, the merged company must continue HKT's former 3G network capacity sharing agreement with China Mobile Hong Kong. (March 11, 2015) telegeography.com

## India



The Department of Telecommunications (DoT) has revealed the provisional results of its spectrum auction for frequencies in the 800MHz, 900MHz, 1800MHz and 2100MHz bands, confirming that the government stands to net INR1.099 trillion (US\$17.49 billion) from the sale. Bidding from the three largest players in the market, Bharti Airtel, Vodafone India and Idea Cellular made up more than three quarters of the bidding value, as the trio sought to win back expiring concessions in key areas and under pressure from newcomer Reliance Jio Infocomm (RJIL). Idea Cellular walked away from the tender with the largest bill and is to pay out INR303.06 billion for 900MHz frequencies in nine areas and 2100MHz spectrum in one circle, Kolkata. Market leader Airtel won back spectrum in the six circles where its concessions were expiring, and expanded its 3G footprint with 2100MHz spectrum in seven circles, costing the cellco INR293.01 billion. Vodafone, meanwhile, is to fork out INR259.59 billion for its seven 900MHz renewals and 2100MHz frequencies in six circles. Reliance Communications (RCOM) had less success, however, losing its 900MHz spectrum holdings in five circles – Assam, Bihar, North East, Orissa, and West Bengal – to its rivals, keeping hold of just Madhya Pradesh and Himachal Pradesh. Nevertheless, RCOM won 800MHz spectrum in eleven circles, and 1800MHz frequencies in five, paying out a total of INR42.99 billion. Elsewhere, despite its bluster in putting down the largest earnest money deposit (EMD) in the lead up to the auction, RJIL failed to acquire any 900MHz airwaves, although the newcomer is understood to have driven up the costs for its entrenched rivals by bidding aggressively for the frequencies. RJIL did not walk away empty handed, however, and added to its spectrum holdings with 1800MHz frequencies in six circles and 800MHz airwaves in ten areas for a total cost of INR100.77 billion. Airtel and Tata Teleservices (TTSL) also won spectrum,





but their bidding had been restrained by the DoT as the pair failed to meet the financial requirements for bidding for airwaves in new circles. Aircel shelled out INR22.5 billion for 1800MHz frequencies in the Tamil Nadu circle, whilst TTSL purchased 800MHz spectrum in Assam, Delhi and Haryana and 1800MHz band frequencies in Andhra Pradesh for a total of INR78.51 billion.

(March 27, 2015) [telegeography.com](http://telegeography.com)

The Telecom Regulatory Authority of India (TRAI) today asked stakeholders whether it was too early to establish a regulatory framework for over-the-top (OTT) services, since internet penetration is still evolving, and access speeds are generally low and there is limited coverage of high-speed broadband in the country. At the same time, TRAI sought opinion on whether a beginning should be made now with a regulatory framework that could be adapted to changes in the future in a Consultation Paper on 'Regulatory Framework for OTT services.' The regulator wants stakeholders to send in their comments by April 25 and counter-comments by May 8. TRAI wants to know if OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) should be brought under the licensing regime. It has sought suggestions on whether the growth of OTT is impacting the traditional revenue stream of telecom service providers and is the increase in data revenues of the TSPs sufficient to compensate for this impact. The regulator wants stakeholders to state whether the OTT players should pay for use of the TSPs network over and above data charges paid by consumers, the pricing options that can be adopted and could they include prices based on bandwidth consumption. Do stakeholders feel that imbalances exist in the regulatory environment in the operation of OTT players? What should the framework to address these issues be, and how can the prevailing laws and regulations be applied to OTT players (who operate in the virtual world)? are some of the questions to which, TRAI wants answers. At the outset, TRAI has noted that TSPs offering fixed and mobile telephony are currently being overwhelmed by online content, known as OTT applications and services. The term OTT refers to applications and services, which are accessible over the internet and ride on operators' networks offering internet access services e.g. social networks, search engines, amateur video aggregation sites etc. This growth has also brought about a fundamental shift in other spheres including telecom and TV. Earlier, networks used to be built around specific applications, say voice, internet or Pay TV. Voice, message and video content have now been reduced to mere bytes. It is becoming increasingly difficult for consumers to know if there is an economic difference in connecting various networks via a land phone, cell phone, or a computer. In fact, young users find it difficult to distinguish among these three networks; from their perspective, all that matters is connectivity. They visualize these not as a layered and interconnected series of discreet networks, but as an organic whole. The regulator therefore wants to know how the security concerns should be addressed with regard to OTT players providing communication services and what security conditions such as maintaining data records; logs etc. need to be mandated for such OTT players. Furthermore, suggestions are sought on how the OTT players offering app services ensure security, safety and privacy of the consumer. What forms of discrimination or traffic management practices are reasonable and consistent with a pragmatic approach, the regulator wants to know, and whether the TSPs be mandated to publish various traffic management techniques used for different OTT applications. (March 27, 2015) [indiantelelevision.com](http://indiantelelevision.com)

The government confirmed that its spectrum auction raised 1.09 trillion rupees (€15.9 billion), with 900 MHz frequencies accounting for two thirds of the total. The 900 MHz spectrum on offer generated INR729.65 billion (€10.6 billion), or 66.4% of the overall sum raised, according to a government report. The 900 MHz airwaves were expected to be the most popular, since they are already in the hands of some of the country's biggest operators, whose spectrum licenses are due to expire in the next couple of years. The state has not yet revealed the identities of the winners though. The auction was contested by eight players. Market leaders Bharti Airtel, Vodafone, Idea Cellular and Reliance Communications are expected to have spent big, but also faced competition from newcomer Reliance Industries, which plans to launch mobile services as Reliance Jio Infocomm later this year. Aircel, Uninor and Tata Teleservices also took part. The 800 MHz spectrum on offer fetched INR171.59 billion (€2.5 billion) and the 1800 MHz airwaves generated INR96.36 billion. The controversial 2.1 GHz spectrum, which was added to the auction by the government, despite objections from many in the industry, raised INR101.15 billion. The auction took place over 19 days and 115 rounds of bidding. (March 26, 2015) [totaltele.com](http://totaltele.com)

Bidding in India's spectrum auction has surpassed the government's expectations, despite only limited interest in the 2100MHz and 800MHz frequency bands. After five days of bidding, the government has received offers totaling INR940 billion (US\$15.0 billion), exceeding the state's projected earnings of INR820 billion, the Economic Times writes. Prices have been driven up by incumbent operators bidding aggressively to retain expiring 900MHz spectrum rights in certain circles: Bharti Airtel, Vodafone India, Idea Cellular and Reliance Communications (RCOM) are at risk of being forced to close down services in certain circles should they fail to repurchase frequencies in those areas. Whilst the 900MHz range has been fiercely contested, spectrum in the 2100MHz band, suitable for 3G services, has seen little demand, due to high reserve prices and the paucity of spectrum currently available. (March 10, 2015) [telegeography.com](http://telegeography.com)

## Indonesia



The government is looking to spearhead a drive towards widespread fiber-optic network coverage and the creation of 'smart cities', via a five-year plan in which it will commit more than US\$24 billion in infrastructure projects in the archipelago, with a significant portion being set aside for telecoms – to push fiber and 4G coverage nationwide, rather than seeing it limited to the greater Jakarta area as it is currently. The minister for communications and technology Mr. Rudiantara said that the government is attempting to take a greater hand in the coordination of network rollouts by the big three providers – PT Telekomunikasi Indonesia (Telkom), PT XL Axiata and PT Indosat – including requesting that they submit their rollout plans, to help it reach this goal. With Indonesia's volume of data traffic expected to grow six-fold, from 84 exabytes in 2014 to 656 exabytes by 2020, the country must roll out fiber-optic networks to carry the additional data. In December last year Telkom, XL Axiata and Indosat said that whilst they were behind the government's five-year broadband expansion plan, they would need 'certain incentives' before they can commit fully. Their statement came in the wake of an announcement from the minister suggesting that state-owned Telkom would set the pace in the country's proposed drive to expand the country's broadband



capacity over the next five years. At the time the minister added that the government was considering extending 'unspecified incentives' to Telkom in an effort to bolster internet access in southeast Asia's largest economy. However, with Rudiantara noting that the government was still in the process of finalizing the details of the plan, Telkom went on record as saying it would require certain assurances – such as additional spectrum and some guarantee that it will be able to see a return on investment for covering less commercial areas. Further, it is understood that Telkom is advocating tax and regulatory incentives from the government, while for its part XL Axiata favours the adoption of an infrastructure sharing plan. Finally, Indosat says it would only come on board if the state provided it with assistance to boost its revenues and trim operational costs. (March 24, 2015) Detik

## Italy



The government has approved a EUR6 billion (US\$6.7 billion) scheme to develop the country's broadband networks. Domestic telcos will be offered incentives

to encourage them to expand and upgrade their high speed internet infrastructure, with the funding coming from Italy and the European Union (EU). The plan is based on the principle of technology neutrality and the market will choose the technology in order to achieve European digital agenda targets. It has been confirmed that incumbent fixed line operator Telecom Italia will not be required to convert its entire copper PSTN network to fiber as part of the scheme. Last October, Italy's government hopes to have a minimum 30Mbps connection available to all Italians by 2020 to help it meet EU digital agenda goals, with around half of the population able to access 100Mbps fiber-based services by that date. Wi-Fi access points will also be deployed to support the 4G Long Term Evolution (LTE) mobile networks being rolled out by the country's four cellular operators: Telecom Italia, Vodafone, Wind and 3 Italia. Italy has the dubious distinction of having the region's lowest broadband household penetration figure, while the country also lags the rest of Europe on broadband speeds; a July 2014 report from the European Commission (EC) placed Italy last amongst EU member states ranked by penetration of 30Mbps and above fixed internet services, with less than 20% of the population able to access higher speed services. (March 4, 2015) Bloomberg

## Kyrgyzstan



State Property Management Fund (Fugue) has announced that it has received an application for the acquisition of a 75% stake in state-owned inactive 3G licensee Kyrgyz Mobile Company. The offer is from Istanbul-based Cer Grup Petrol Sanayi Ve Tic Limited Sirketi (Traction Group Oil Industry and Trade Company Ltd), which has now been authorized to participate in the bidding process. Going forward, offers from other eligible applicants will also be considered. The stake sale is expected to lead to the long-awaited privatization of the would-be operator, which was established in 2011, but has never launched commercially. In 2011 the National Communications Agency (NCA) allocated GSM and UMTS frequencies to the newly established Kyrgyz Mobile Company. In February 2012 the government proposed a list of companies to be privatized between 2012 and 2014, which included Kyrgyz Mobile Company, via the sale of a 75% stake. Local and international investors were invited to take part in separate auctions held in August and December 2012, with a starting bid

price of KGS152.5 million (US\$2.5 million), although no applications were submitted. Yet another auction was scheduled to take place on April 19, 2013, but once again failed to generate any interest. (March 19, 2015) telegeography.com

## Kosovo



Regulatory Authority for Post and Electronic Communications (ARKEP) has announced that it has green-lit plans to move ahead with the allocation of 1800MHz frequencies for GSM/UMTS/Long Term Evolution (LTE)/WiMAX services. Slovenian-backed cellco IPKO filed an application for 2x15MHz of 1800MHz frequencies on 30 January, whilst state-backed rival Vala, the wireless arm of Post and Telecommunication Kosovo (PTK) submitted an expression of interest (EoI), requesting the use of an unspecified amount of additional 1800MHz airwaves on 5 February. ARKEP will now review the applications and determine the procedures and requirements for the allocation of the 1800MHz resources. The regulator stressed that the process will be non-discriminatory and transparent. (March 26, 2015) telegeography.com

## Malaysia



A detailed review of laws governing the Internet is being carried out, and amendments to be tabled this October, said Datuk Seri Ahmad Shabery. The Communications and Multimedia Minister said the current laws were being looked into as they were enacted 17 years ago. The laws concerned are the Communications and Multimedia Act 1998 and the Communications and Multimedia Commission Act 1998. "We will review all aspects of the Acts including the management of the Malaysian Communications and Multimedia Commission (MCMC)," said Shabery in a reply to Datuk Bung Mokhtar Radin (BN-Kinabatangan) in parliament on Thursday morning. Bung had asked if the Ministry was planning to control the use of social media to prevent misdemeanors. Shabery said the Ministry was currently engaging various stakeholders to find a solution to the matter. He also said there was no country in the world that had laws governing the use of social media. He said it was difficult to govern the use of social media, but Facebook was cooperative when it came to restricting the recruitment of terrorists.

(March 19, 2015) thestar.com.my

## Macau



Telecommunications Regulation Bureau (DSRT) granted 4G mobile licenses to all four of the territory's existing cellular network operators, namely Companhia de Telecomunicacoes de Macau (CTM), China Telecom Macau, SmarTone and Hutchison Telecom Macau. Two other applicants did not win licenses, the regulator's press release disclosed, namely China Mobile Hong Kong and U Hong Comunicacoes. Winners of the eight-year licenses must launch 4G services with at least 50% population coverage by the end of 2015, rising to 100% coverage in 2016. The DSRT will review competition after two years to consider the possibility of a fifth 4G license award. Separately, Hong Kong-backed Hutchison, which offers services under the '3Macau' banner, released a statement saying that it will launch 4G Long Term Evolution (LTE) network services in Q4 2015 so that customers 'will benefit from abundant spectrum resources and an unprecedented ultra-fast 4G mobile communications experience.' CEO Ho Wai Ming



said: '... Smart device popularity has given rise to soaring demand for high speed data service. The license award enables us to boost data transmission speeds and usher in the new 4G LTE telecoms era. Moving forward, 3Macau will invest more than MOP300 million [US\$36.3 million] to develop a 4G LTE network. 3Macau's solid foundation facilities, plus 3 Hong Kong's rich experience in 4G network development and outstanding performance, enable us to launch 4G LTE service during the fourth quarter of this year.' 3Macau is lining up new tariff plans, plus a variety of value added services to tie in with 4G LTE network development. CTM's CEO Vandy Poon Fuk Hei said in a statement that the company would provide locals with the most advanced 4G services within this year based on the company's extensive knowledge and experience in infrastructure projects. A China Telecom spokesperson was quoted as saying that the company was confident of launching 'full coverage' of 4G services from the third quarter of this year. It also promised that it will provide 4G experience in advance for locals to trial, while also pledging to lower tariffs. (March 10, 2015) Macaupost

## Mexico



Mexico-based Grupo Pegaso has selected US satellite broadband provider Hughes Network Systems to supply its JUPITER System to help bridge the 'digital divide' for communities in rural Mexico. Pegaso Banda Ancha, a Grupo Pegaso company, will deliver services over the Bicentenario satellite owned by Mexico's Secretariat of Communications and Transportation (SCT), operating a Hughes JUPITER Gateway and more than 5,000 remote terminals. Pegaso Banda Ancha, which was created in 1999, offers its services not only in Mexico, but also in the US, Central America and the Caribbean, using HISPASAT satellites and MEXSAT's Bicentenario satellite. The company claims to be 'one of the leading satellite connectivity service providers in Mexico' and claims a 35% share of the satellite broadband sector.

(March 18, 2015) telegeography.com

## Moldova



The National Regulatory Agency for Electronic Communications and Information Technology (ANRCETI), has announced that the tender for the allocation of frequencies in the 3400MHz-3600MHz frequency band, suitable for broadband wireless access (BWA) and fixed wireless access (FWA) services, has failed to attract any bids. In November 2010 Moldova's Ministry for Information and Communication Technologies (MTIC) adopted a program to develop broadband internet access for 2010/13, including the allocation of frequencies in the 2.5GHz-2.69GHz and 3.4GHz-3.8GHz bands. In December 2012 interested parties were invited to submit their applications by 18 February 2013; however, the sale process of 50MHz of spectrum between 3750MHz and 3800MHz generated no interest. The ANRCETI pledged to re-launch a tender in October-December that year, although the date came and went with no further announcements. It was September 2014 before the watchdog revealed that it would award four BWA licenses, each encompassing 50MHz of spectrum in the 3.4GHz-3.8GHz band; the sale process however failed to attract any bids. A new auction, this time for spectrum in the 3.4GHz-3.6GHz band, was introduced in January 2015, with starting price of EUR1 million (US\$1.08 million) for the concessions; the regulator invited all interested parties to submit their applications for participation in the tender by March 13, along with

all relevant documents and a security of EUR100,000.

(March 23, 2015) telegeography.com

## Myanmar



Telecoms regulator the Ministry of Communications and Information Technology (MCIT) has issued licenses to eleven companies since the start of the year. Network Facilities Services (Individual) licenses, which permit their holders to construct networks, lease access to service providers and to offer any type of public or private telecom service, have been awarded to Shwe Than Lwin Media (January 30), Elite Telecom (February 27) and Yatanarpon Teleport (YTP, February 27). Meanwhile, Network Facilities (Class) licenses have been awarded to: Global Technology (30 January), Myanmar Fiber Optic Communication Network (February 3), Pan Asia Majestic Eagle (February 3), Digicel Myanmar Tower Company (February 3), Irawaddy Green Towers (February 3), Apollo Towers Myanmar (February 3) and KDDI Summit Global Myanmar (February 25). Network Facilities (Class) concessions permit licensees to deploy and maintain passive infrastructure and to lease access to service providers. (March 19, 2015) telegeography.com

## New Zealand



New Zealand-based Spark (formerly Telecom New Zealand) has confirmed that it is partnering with international aid groups in order to help restore communications services to the Pacific island nation of Vanuatu in the wake of Cyclone Pam. Spark's chief technology officer David Havercroft commented: 'Our primary focus is to re-establish internet communications. Currently the outer islands use microwave links to stay in contact and most of these are down so we are working to put a satellite-based solution in place to restore connectivity to the islands.' The lethal cyclone – a category five storm – is said to be one of the worst natural disasters to have hit the country, with President Baldwin Lonsdale saying it has 'wiped out' all of the infrastructure development that has taken place in recent years. Meanwhile, in a statement on Sunday, Oxfam Australia said this was 'likely to be one of the worst disasters ever seen in the Pacific'.

(March 16, 2015) telegeography.com

## Nigeria



Nigeria has restarted the process to sell off spectrum in the 2.6 GHz band for mobile broadband services, giving interested parties until April 21 to submit applications to take part. The Nigerian Communications Commission (NCC) plans to sell 70 MHz of paired 2.6 GHz spectrum via an auction that is now due to start in May. It had aimed for an earlier sale, but put the process on hold in November last year for administration reasons. It said it wanted to ensure that the licenses would be available to the winners as soon as the auction concluded. Under the new timetable, the NCC aims to hold a mock auction on May 4 and to conduct the auction proper over May 5 - May 8. It expects to be able to announce the provisional winners on May 11, with the final result coming in early June, once the successful companies have paid for their licenses. The NCC has divided the available spectrum into 14 lots of 5 MHz each. It has set a reserve price of US\$16 million per lot, thus it should raise upwards of \$224 million from the contest. Auction participants will be required to bid for at least four lots of spectrum and





will not be permitted to bid for more than eight lots. The licenses will be valid for 10 years. The auction is open to new players, but all applicants must be companies registered in Nigeria. In addition, the spectrum does not come with an operating license, but any new player that won frequencies would be granted a Unified Access Service License (UASL) upon payment of an additional 374.6 million naira (\$1.86 million) fee. Nigeria is home to five mobile operators: Airtel, Etisalat, Glo Mobile, Mtel and MTN. It also has a number of players offering fixed and fixed wireless services. By mid-2014 mobile penetration had reached 94% in a country of 168.8 million people, the NCC reported. (March 18, 2015) totaltele.com

## OTT Provider

Over-the-top (OTT) video is forecast to be an US\$8 billion industry in the Asia Pacific region by 2020, up from the current \$3 billion mark, according to a board member of the regional pay-TV industry body CASBAA. Speaking at the CASBAA OTT Summit 2015 in Singapore, Christine Fellowes of CASBAA's OTT & Connected Media Group, said: "Currently fixed broadband in Asia Pacific is at 35% household penetration. Mobile broadband subs powered by 3G and 4G networks are at 866 million today and will expand to reach almost two billion subs in just five years. "While linear television will remain the driving force for some time, OTT is currently a US\$3 billion industry in Asia Pacific and forecast to be \$8 billion by 2020," added Fellowes, who is also MD, Asia Pacific, Universal Networks International. OTT should be deemed more of an opportunity than a threat for other players in the television industry, she told the 200 delegates. "OTT is being leveraged by free broadcasters, pay-TV providers and pay-TV platforms too, but discrepancies between markets in the Asia Pacific region are phenomenal and, as a result, OTT in some markets will have a much longer trajectory than in more developed markets," said Wangxing Zhao, associate research analyst, SNL Kagan. "Netflix has proven that OTT is more about getting new subscribers for the TV industry, rather than cannibalizing existing ones." However, realising OTT revenues still needs to be improved in an area beset by content piracy, delegates heard. "Evidence confirms that the main reason people pirate is because it is free, and I don't think the industry alone can remedy this simply by putting more content options out there, without substantial help from the authorities in more actively enforcing copyright," said Matt Pollins, media lawyer, Olswang Asia. "In many Asian markets there are services flagrantly infringing copyright in broad daylight without any real risk of enforcement," Pollins warned. Although not as topical as in the US at present, delegates heard that net neutrality could become an Asian issue in the future, as decisions are made as to who pays for the bandwidth needed to deliver online content provided by the likes of YouTube and Netflix. Ultimately, delegates agreed old business models must evolve. David Habben, chief media strategist, Akamai Technologies, summed this up, concluding: "Change is the thing that will define this industry, and those who can manage that best will succeed." (March 6, 2015) rapidtvnews.com

## Paraguay



Eduardo Neri Gonzalez, the president of Paraguayan regulator Consejo Nacional de Telecomunicaciones (Conatel), is preparing to stage a public consultation to discuss the draft amendment to the 20-year-old Telecommunications Act No. 642/95. Gonzalez told Ultima Hora: 'The main objective of this project is to

update the regulatory framework of Act No. 642/95 to fit the current dynamics of telecoms sector. Considering the current legislation dates back to 1995, there was no talk of the internet. Today's reality is that data traffic exceeds voice traffic, and the same operators are licensed for different services.' Following the public consultation, the draft document is likely to be revised by Conatel and passed to Congress for its consideration.

(March 11, 2015) telegeography.com

## Poland



Mobile operator Polkomtel, which is part of the Cyfrowy Polsat group and operates under the 'Plus' brand, has withdrawn from the government's auction of 800MHz wireless spectrum. The firm issued a statement to explain its decision, saying that it was pulling out of the sale on competition grounds. Polkomtel said it believes that the best way to utilize 800MHz spectrum is for operators to collaborate and share their spectrum to build either one or two national networks. Six companies entered the bidding for the auction of five blocks of 800MHz frequencies which is being run alongside a sale of 14 blocks of 2600MHz spectrum; both bands can be used for 4G Long Term Evolution (LTE) technology. The bidders are: Polkomtel, Orange, T-Mobile, P4/Play, Hubb Investments (a subsidiary of Emitel) and NetNet, which is owned by a business partner of Polsat shareholder Zygmunt Solorz-Zak. Firms can buy up to two blocks at 800MHz and up to four blocks at 2600MHz. The five 800MHz blocks have so far attracted bids totaling PLN1.75 billion (USD458 million), while the 2600MHz frequencies have bids adding up to around PLN385 million. Polkomtel says Orange and T-Mobile already share 2G, 3G and 4G infrastructure and would be likely to pool their 800MHz resources, meaning other operators in the same band would be at an immediate disadvantage in terms of available bandwidth. It has therefore retired from the sale and is requesting an 800MHz network sharing pact with P4, Hubb and NetNet.

(March 12, 2015) telegeography.com

The government has called a temporary halt to the ongoing auction of 800MHz and 2600MHz 4G Long Term Evolution (LTE) spectrum as it awaits the payment of deposits from the six registered bidders. The total bid amount for the 19 frequency blocks has now reached PLN2 billion (US\$480 million) and this has triggered the requirement that bidders hand over a deposit payment equivalent to 25% of their respective bid amount. The government has not said when the auction is expected to resume. The bidders include existing cellcos Orange Polska, T-Mobile Poland, Polkomtel and P4 (Play), plus a company associated with Emitel, and NetNet, which is owned by Szymon Ruta, who has links to Cyfrowy Polsat and Polkomtel. Meanwhile, existing 800MHz licensee Sferia has signed a wholesale agreement with its sister companies Mobyland and Aero2 for the use of its 800MHz LTE spectrum. Sferia says the first phase of its network rollout will see the deployment of some 1,200 base stations, with around 5,000 sites needed nationwide to provide optimal coverage. (March 4, 2015) RPKom

## Russia



Mobile TeleSystems (MTS) has transferred its 100% stake in MTS Ukraine to an indirect ownership structure, under which from February 26, 2015 all shares in the Ukrainian private joint-stock company will be held by Netherlands-based Preludom B.V., itself owned by



Luxembourg-registered firm Allegretto Holding. MTS spokesperson Elena Kokhanovskaya told Interfax: 'The asset was transferred to expand the opportunities of raising investment in MTS Ukraine', while MTS Ukraine's press service said that the new indirect European ownership structure is designed to help facilitate dialogue with potential investment partners.

(March 2, 2015) telegeography.com

## Singapore



The Infocomm Development Authority of Singapore (IDA) has released its latest update on telecoms services in the city-state for the month of December 2014,

showing that fixed line household penetration stood at 101.3% at the end of last year, up from 96.8% in November, as total fixed line subscriptions climbed 14,800 to 1.995 million. Of these, some 1.247 million are residential connections (up 16,600) and 747,900 are corporate lines (down 1,900). According to the IDA's figures, fixed (population) teledensity stood at 36.5% at the start of this year, up 0.3 of a percentage point from November. In the Singapore mobile market, the total number of mobile subscriptions (2G+3G+4G) reached 8.093 million at end-December, down marginally from 8.108 million the previous month, of which only 89,800 are now 2G/GSM connections. By contrast, the uptake of Long Term Evolution (LTE) 4G services continues apace, reaching nearly 3.182 million last year, predominantly post-paid (2.924 million) subscriptions, while 3G accounts for 4.608 million of the total – a figure down from 5.211 million in July 2014 due to the rise of 4G. Turning to the fixed broadband segment, the IDA reported a total of 1.451 million connections at end-2014, of which 103,400 are corporate wired accounts. Of the total, xDSL accounts for 236,300 users (Nov-14: 243,200), cable for 503,800 (510,600), with fiber supplanting more 'traditional' broadband platforms, accounting for 708,000 lines by 31 December, up from 692,000 in November; other platforms accounted for just 2,600 lines. The residential wired broadband penetration rate stood at 106.0% at the end of the period under review, according to the IDA's data. (March 6, 2015) telegeography.com

## South Africa



The Independent Communications Authority of South Africa (ICASA) has ordered telco MTN to immediately cease collection of an US\$0.25 per minute interconnect rate for internationally-originating voice traffic and to comply with the charging regime contained in the Call Termination Regulations. On October 22, 2014 MTN issued a statement highlighting that 'all international originated voice traffic destined for the MTN network will be charged at US\$0.25 per minute as termination rate as of 1 November 2014. Internationally originated voice calls transiting on MTN's network to other South Africa networks will be charged at US\$0.25 per minute as of November 1, 2014.' ICASA subsequently received a complaint from members of the Internet Service Providers' Association (ISPA) and further queries from other licensees requiring regulatory clarity on the matter. Following an investigation, ICASA pointed out that the current call termination regulations do not make a distinction between termination services for voice calls originating within and outside of the borders of South Africa. Thus, the authority claimed that 'by charging a different rate or termination between licensed operators in the manner that it has, MTN is in breach of the non-discrimination principles as per

section 37 (6) of the Electronic Communications Act'. For its part, MTN said that its international termination rate (ITR) was an attempt to bring into equilibrium the significant outflows of money from South Africa. Graham de Vries, chief corporate service officer at MTN South Africa, was cited by MyBroadband as saying: 'ICASA's decision effectively now does not permit us to do this ... This means that the ITRs that international carriers are charging severely tilts pricing in favor of international carriers.' 'MTN is studying the decision taken by ICASA and will be engaging with ICASA on this matter in due course', the executive added. (March 25, 2015) telegeography.com

## South Korea



Three mobile network operators have once again incurred the wrath of regulators for flouting new regulations on device subsidies. The Korean Communications Commission (KCC) has fined the telcos a total of 3.4 billion won (€2.8 million) for offering hefty discounts on smartphones. LG U+, the smallest of the three, was hit with the biggest fine - KRW 1.59 billion - since it offered illegal subsidies for the longest period, the paper said. Its Zero Club offer, which was adjudged to be in violation of new rules designed to curb subsidies, ran from October to early March, the paper explained. Meanwhile, SK Telecom was fined KRW930 million for its Free Club plan and KT was billed KRW870 million for its Sponge Zero; both suspended their offers in January, it added. Korea's Mobile Device Distribution Improvement (MDDI) Act came into force in October. Under the act, the KCC sets an upper limit of between KRW250,000 and KRW350,000 (approximately €200-€300) in subsidies per customer. At present the cap stands at KRW300,000, but the limit is reviewed every six months. The country's previous cap stood at KRW270,000. All three operators were fined for breaking the new law late last year by offering hefty discounts on the iPhone 6.

(March 16, 2015) The JoongAng Daily

South Korea will sell off spectrum in the 700 MHz band to mobile operators later this year, according to local press reports at the weekend. The country's regulator will finalize auction details in the first half of 2015 and carry out the process in the second half, the Korea Times reported on Sunday, citing Choi Sung-joon, chairman of the Korea Communications Commission (KCC). The KCC needs to prepare what Choi described as "an exit strategy", due to escalating tension between mobile operators and terrestrial TV broadcasters regarding the spectrum. The paper explained that Korea's main broadcasters are lobbying the government for exclusive rights to the 700 MHz band. The mobile operators naturally disagree with any such move. The country's three main mobile operators, SK Telecom, KT and LG U+, said they are ready for the auction, the paper said. KT warned that the process would likely bring with it greater financial pressure for the telcos. However, a spokesperson for the company said it has no choice but to take part, since it needs more spectrum as it prepares for 5G mobile services. Speaking at Mobile World Congress last week, KT chief executive Chang-Gyu Hwang talked up the country's plans to roll out 5G networks – albeit pre-commercial - in time for the 2018 winter Olympics in PyeongChang. "It's so close. You only need to wait a few years," he said. (March 9, 2015) totaltele.com



## Thailand



ICT Ministry and the National Broadcasting & Telecommunications Commission (NBTC) have reached an agreement that all private sector and state-owned

telecoms operators should have their mobile spectrum bandwidth usage capped at 2x50MHz each. The cap is aimed at ensuring that 'smaller operators' can obtain bandwidth at the upcoming technology-neutral mobile license auction(s) so as to create more competition to private sector incumbents AIS, DTAC and True Corp, according to NBTC secretary-general Takorn Tantasith. The NBTC will have to issue new regulations to enforce the 50MHz maximum, which will automatically apply to those currently exceeding the cap. Although the cap will apply only to spectra actually in use. Meanwhile, ICT Minister Pornchai Rujiprapa said the technology-neutral (4G) license auction might not take place until the fourth quarter of this year, instead of its tentatively scheduled date of August, pending Cabinet approval of the latest plans of the ministry and regulator. Mr. Takorn says the NBTC will proceed with auctioning the 1800MHz bands relinquished by True and DPC (part of AIS) – offering two licenses each with 12.5MHz bandwidth – followed by two 10MHz licenses in the 900MHz band (being returned by AIS), while the watchdog aims to reclaim a total of 50MHz of bandwidth on the 1800MHz spectrum from DTAC in phases to create four additional 12.5MHz licenses. CAT Telecom granted 50MHz to DTAC under a build-transfer-operate (BTO) concession, but the private sector cellco utilizes only half of it, and Takorn insists the NBTC will initially reclaim the unused block. Mr. Pornchai added that the NBTC might have to compensate CAT if the state agency agrees to transfer the bandwidth for auction before the BTO concession ends in 2018. To this end, the NBTC has proposed a special fund to pay compensation to state agencies if they transfer frequencies for reallocation, a suggestion which has been passed to the Council of State for potential addition to a new draft Frequency Allocation Bill. Takorn said the NBTC would also review the starting bid price for 12.5MHz bandwidth, which was previously proposed at THB11.26 billion (US\$345 million). Further, the government is aiming to add 64MHz of unused 2.3GHz spectrum held by TOT to the upcoming 4G auctions; the ICT Ministry has been asked to appropriate the 2.3GHz resource from the state-owned telco. There have been suggestions that in return TOT might be allowed to retain control of some 900MHz spectrum which it previously issued to AIS under a BTO contract ending this September.

(March 27, 2015) The Nation

Government has announced that the country's anticipated technology-neutral 900MHz/1800MHz mobile license auction will be held by August this year, allaying concerns that the already-delayed process would be pushed back further. Deputy Prime Minister Pridiyathorn Devakul confirmed that the National Broadcasting & Telecommunications Commission (NBTC) is 'ready' to conduct the 4G auction. Pridiyathorn also denied claims that the government will 'micro-manage' the tender, promising that the NBTC will be allowed to proceed unhindered, although the regulator will be required to report to Thailand's new Digital Economy board every month after the board is formally authorized. The deputy PM also indicated that the government would accelerate efforts to reallocate other spectrum bands including the 2300MHz and 2600MHz ranges for 4G mobile usage, aiming to include these too in the license auction process alongside the 900MHz and 1800MHz frequencies already up for grabs. He added

that negotiations were being held with broadcaster MCOT to negotiate the return of 120MHz of 2.5GHz spectrum for inclusion in the 4G auction 'within two weeks'. (March 19, 2015) TelecomAsia

## United Kingdom



The government published a Policy Paper alongside its 2015 budget entitled 'The digital communications infrastructure strategy' setting out its proposed measures to deliver broadband access speeds of at least 100Mbps to nearly all UK premises. The proposals include the introduction of a universal service obligation (USO) for broadband internet access, replacing the existing USO which includes only dial-up access, thereby establishing broadband as a basic legal right. The government proposes to give residential and enterprise telecoms users the legal right to demand a broadband connection at their premises of at least 5Mbps at a reasonable price, although the policy does not set a deadline for the USO to take effect. In his budget, Chancellor of the Exchequer George Osborne also outlined an ambition for a future national minimum broadband speed of 100Mbps – although stopped short of setting a timeline for this target – whilst promising GBP600 million (US\$885 million) to help clear new spectrum for mobile internet, funding for Wi-Fi in public libraries, and grants to install satellite broadband in remote rural areas. As quoted by The Guardian, Sarah Lee, head of policy at the Countryside Alliance, cautiously welcomed the government's latest broadband promises, but noted previous unmet pledges while indicating that the initial 5Mbps minimum speed mentioned would be below many rural users' expectations: 'Especially for those rural communities that have not been connected so far, it's a light [at the end] of the tunnel for them .... But what we want is delivery. Rural communities have been overpromised, and transparency of delivery has really failed them. We are very supportive of a universal service obligation, but research shows for everyday uses 10Mbps is the optimum level.' State-funded rollouts by UK incumbent BT target superfast broadband coverage of 95% of premises nationwide by 2017, and plans announced in the budget are designed to bring coverage to a further 1% of homes using satellite. As stated in the policy paper: 'Starting with premises experiencing the lowest speed broadband, the government will launch a scheme with local bodies across the UK this year to subsidize the costs of installing superfast capable satellite services.' In another aspect of the budget, Mr Osborne announced that the government will pledge funds to develop applications for the Internet of Things (IoT) and 'smart cities'. (March 19, 2015) telegeography.com

The government earmarked £600 million for clearing spectrum bands and reusing them for mobile broadband. The announcement was made by George Osborne, Chancellor of the Exchequer, as part of his pre-election budget statement. As well as improving terrestrial networks, he also pledged to test "the latest" satellite technology in a bid to provide coverage to remote areas. The government will also invest in WiFi for public libraries and the Internet of Things (IoT). "This is the next stage of the information revolution," said Osborne of IoT, "connecting up everything from urban transport to medical devices, to household appliances." Furthermore, the government will set itself a new target of providing every home with at least 100 Mbps broadband, should the Conservative party be re-elected in May. "The use of satellite technology, to reach the remotest areas, alongside moves to free up more spectrum for mobile





are evidence of a holistic approach. In addition, the explicit commitment to the Internet of Things ensures that infrastructure improvements translate into tangible benefits for consumers and businesses in the long-term," noted EY's lead telecoms analyst Adrian Baschnonga. "We welcome also the government's ambition for ultrafast broadband," said Greg Mesch, CEO of CityFiber, which is in the process of deploying fiber-to-the-premises (FTTP) networks in major U.K. cities. "However, the target of at least 100 megabits per second is too low. As the British economy becomes more digitally based, it is vital that even faster Gigabit speeds are achieved." He said the U.K.'s infrastructure is underperforming. "Investment in fiber infrastructure is critical for sustainable economic growth," Mesch said. "Therefore, it is vital the government does all it can to encourage a competitive environment for fiber investment." (March 18, 2015) [totaltele.com](#)

Media regulator OFCOM will review the UK's digital communications market for the first time in a decade in order to ensure competition remains in a sector increasingly dominated by telecom giants. OFCOM said its review will look to identify if there is scope for deregulation in "some areas" of the market and find the "right incentives for private-sector investment". Since 2005, when the regulator last completed its review of the wider telecommunications sector, the market has rapidly changed with providers now offering TV, internet and landline services on a growing range of platforms, known as "quadplay". Recent regulatory measures have included a 2011 cap on wholesale mobile rates and 2010 rules to promote competition in superfast broadband. An initial discussion document will be released this summer, while the second phase of the review outlining conclusions for the market will be released at the end of the year. (March 12, 2015) [telegraph.co.uk](#)

## United States



A group of U.S. telcos is suing the Federal Communications Commission (FCC) over its decision to reclassify broadband service as a utility under its revised net neutrality rules. In a lawsuit filed on Monday with the U.S. Court of Appeals for the District of Columbia, lobby group USTelecom, which counts major telcos and ISPs among its membership, argued that the adoption by the FCC of Title II of the Communications Act as the legal framework for regulating the Internet is "arbitrary, capricious, and an abuse of discretion," and called for the rules to be reviewed. Regulating broadband providers under Title II subjects them to much closer scrutiny over how they manage traffic on their networks, and prevents them from striking commercial deals with online players to prioritize their services. They apply to both fixed and mobile carriers. "The focus of our legal appeal will be on the FCC's decision to reclassify broadband Internet access service as a public utility service after a decade of amazing innovation and investment under the FCC's previous light-touch approach," Jon Banks, SVP of USTelecom, in a statement. "As our industry has said many times, we do not block or throttle traffic and FCC rules prohibiting blocking or throttling will not be the focus of our appeal," he said. The new net neutrality rules were issued on 12 March but have yet to appear on the Federal Register. USTelecom said it opted to file a lawsuit now to avoid potentially missing a deadline for filing for review. However, it is worth noting that the new rules will not come into effect until 60 days after their publication on the Federal Register. In a report by Reuters, the FCC said USTelecom's legal challenge is "premature and subject to dismissal." (March 24, 2015) [totaltele.com](#)

Regulator publishes Open Internet Order in full, insists Title II rules have been 'modernized'. Net neutrality in the U.S. is once again the subject of heated debate after the Federal Communications Commission (FCC) on Thursday released a document laying out the regulations it voted in last month. The U.S. regulator narrowly voted in favor of adopting a modified version of Title II of the Communications Act of 1934 as the legal framework for regulating net neutrality a fortnight ago. As a result, broadband providers – fixed and mobile – are reclassified as common carriers, opening them up to closer scrutiny over how they manage traffic on their networks. The FCC has now released its full Open Internet Order, a weighty tome that it claims will "separate fact from fiction" when it comes to net neutrality. In an accompanying statement Tom Wheeler, the FCC's chairman, reiterated the regulator's goal of making broadband networks fast, fair and open. He also addressed one of the most frequently made complaints about the new rules: that they are out of date. "This modernized Title II will ensure the FCC can rely on the strongest legal foundation to preserve and protect an open Internet," he said, going on to emphasize the word "modernized". "We have heard endless repetition of the talking point that 'Title II is old-style, 1930's monopoly regulation.' It's a good sound bite, but it is misleading when used to describe the modernized version of Title II in this Order," Wheeler insisted. Verizon has been one of the most vocal opponents of the new Order, pointing out that Title II was originally drawn up as long ago as 1934. Doubtless the U.S. telco, and myriad other industry stakeholders, will have further comments to make when they have fully digested the Open Internet Order, which at several hundred pages long could take some time.

(March 13, 2015) [totaltele.com](#)

The Federal Communications Commission (FCC) decision on net neutrality could affect telecom investment plans, according to Fitch Ratings. This week, the FCC adopted rules on net neutrality that will impose Title II regulation on broadband internet access providers. We believe there will be no immediate effect on the credit profiles of cable and telecom companies in our rated universe as the decision was not unexpected and it is a virtual certainty that the rules will be challenged in the courts, with the process taking two or three years to play out. While the rules are litigated, the most likely impact would be to lower investments by the major telecom and cable operators in potential new growth areas. The FCC has introduced the Title II rules as the outcome of challenges to its 2010 Open Internet Rules. In December 2010, the FCC issued its Open Internet Rules and Verizon later sued to overturn the rules. In January 2014, an appeals court vacated the anti-blocking and anti-discrimination portions of the 2010 Open Internet Rules, but left the door open for the FCC to implement Title II regulation. Unlike its 2010 Open Internet Rules which had limited applicability to mobile broadband services, the FCC has decided to apply the new rules, in their entirety, to both fixed and mobile broadband services. Fitch believes even if the rules were implemented immediately, there would be very little near-term effect on revenues or operating profits from existing services. If put firmly in place, Title II rules could ultimately change the way internet traffic is managed as well as impact future revenue opportunities and business models. Operators are concerned that this decision opens the door for much greater regulation of the Internet in the future. The FCC's order has refrained from enforcing numerous provisions of Title II and other regulations -- known as forbearance -- but lead regulators to further ramp up regulation. For example, the order forbears from rate regulation, tariffs, and last-



mile unbundling, but a future commission could decide to enforce the provision. Negative aspects for investors in the long-term would include the potential for greater regulation of broadband services and the reduced opportunity to benefit from potential new business models. (March 3, 2015) cellular-news.com

## Vanuatu



The International Telecommunications Union (ITU) is supplying emergency satellite communications equipment to the archipelago of Vanuatu, which on March 13 endured a category 5 tropical storm known as Cyclone Pam. The storm caused winds estimated at 250 Km/h, along with peak gusts of roughly 320 Km/h, which severely damaged infrastructure across the country, including the capital city of Port Vila on the island of Efate. ITU issued 40 satellite phones and 10 Broadband Global Area Network (BGAN) terminals, along with 35 solar panels to support relief coordination efforts. There are currently more than 2,000 people taking refuge in more than 25 evacuation centers on the islands of Efate, Torba and Penama. "The frequency and intensity of disasters is increasing worldwide with a disproportionate impact on developing countries," said ITU Secretary General Houlin Zhao. "We are working with our partners to increase the capacity of member states to integrate [Information and Communication Technologies] ICTs in their disaster risk-reduction policies. ITU is also encouraging governments, especially those in developing countries, to invest in telecommunication infrastructure that is resilient to disasters." (March 27, 2015) satellitetoday.com

Telecommunications and Radiocommunications Regulator (TRR) has confirmed that it has issued a telecoms license to new operator Global Telecom Pacific. The license was awarded on March 6, and is valid for 15 years. Global Telecom Pacific is expected to enter the market as an internet service provider (ISP). According to the TRR, prior to the award of a concession to the new entrant, a total of seven operators held authorizations for the provision of telecoms services in the country, namely: Telecom Vanuatu Limited (TVL), Digicel Vanuatu, Wantok Networks, Incite Technology at Work, Interchange Limited, Telsat Broadband and Spim Limited. TVL and Digicel are the only operators authorized to provide mobile and fixed telephony services, while the remainder of the companies are ISPs. (March 10, 2015) telegeography.com

## Zimbabwe



The government is looking to create a standalone entity to take control of the country's telecoms infrastructure, leaving operators free to concentrate on service provision. The Deputy Minister of Information Communication Technology, Postal and Courier Services, Dr. Win Mlambo, told a conference: 'As Government we want to see one independent company setting up infrastructure for the telecoms companies so that this whole dispute of who owns which infrastructure is solved. So that is the route that Government has taken and we will sit down with the players to agree on certain terms.' The announcement was welcomed by at least one of the country's telcos, with Reward Kangai, CEO of state-backed cellular operator NetOne, saying that it would promote competition on the level of service provided and thus benefit the consumer. Meanwhile, state-owned fixed line operator TelOne is pushing ahead with its own network deployment, saying that it is beginning work

on an ADSL expansion, with USD2 million set aside for the infrastructure rollout. Details of the new broadband locations were not disclosed. (March 19, 2015) The Herald

The new ICT policy, which has taken over four years to compile will soon be presented to Cabinet, Information Communication Technology, Postal and Courier Services Minister has said. In an interview, the minister said the ICT policy was high priority as the industry needs serious regulation to address a number of anomalies. "What we are working on right now is that by end of March, I should have taken the revised ICT policy to Cabinet for discussion and hopefully adoption," said Minister. He added that, in a dynamic industry and country where ICTs are rapidly growing, there is an urgent need to unveil a cyber Bill to curb high rates of cybercrime; hence an urgent need for a legal framework to deal with this as it is one of the urgent priorities. Zimbabwe first launched its National ICT Policy Framework in 2007, but the document was overtaken by developments in the fast-growing sector. The National ICT Policy is expected to provide for the establishment of national information and communication technology authority, national information and communication technology converged regulator and e-government, among other things. Soon after the policy was reviewed, it was submitted for validation which took place a few weeks after the inception of the revised document. The validation stage involved the corroboration of information, which was gathered during the outreach program with the information contained in the original draft. The then ICT Minister, highlighted that the policy was crucial, as it would buttress the country's achievements in ICT's. It is also noted that the ICT growth, during that time, had been largely driven by the high mobile penetration rate which skyrocketed from 19 percent to 79 percent. Last year there was another review of the ICT policy in the form of consultations from ICT stakeholders. The exercise was necessary to ensure that the policies that govern our sector are current and also be able to respond to national needs and challenges. The consultative process managed to deliberate on issues such as ICT governance, e-government, ICT access, utilization and ICT infrastructure. Heated debates arose on how mobile service providers can share infrastructure. The current ICT policy that the country is using was crafted 10 years ago and is no longer in touch with technological developments in Zimbabwe. (March 12, 2015) allafrica.co

**Javaid Akhtar Malik**

Regulatory Affairs  
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"Information contained herein has been obtained from sources, which we deem reliable. SAMENA Telecommunications Council is not liable for any misinformed decisions that the reader may reach by being solely reliant on information contained herein. Expert advice should be sought."



## Seven Best Practices for Enhancing Data Roaming in the Middle East and Africa

Operators across the Middle East and Africa are facing an ever-increasing number of new challenges in today's fast-moving mobile marketplace. New regulatory requirements, new competition from OTT players, and LTE infrastructure investment requirements represent just a few.

Yet one area that continues to offer a promising growth opportunity is data roaming. Growth in worldwide data usage continues to soar, and in the Middle East and Africa, it's projected to skyrocket from 170 megabytes per user to 2.0 gigabytes from 2014 to 2019, according to the Cisco Visual Networking Index report. And the same report predicts that the number of users in the region will increase from 561 million to almost 800 million during the same period.

At the same time, the Middle East and Africa are benefiting from a rising number of international tourists that are spurring demand for data roaming services across the region. In 2014, for example, international tourism in the Middle East grew 4 percent, with the region attracting

an additional 2 million arrivals and bringing the total number of tourists to about 50 million, according to the United Nations World Tourism Organization. While Africa's international tourist numbers grew less, by approximately 2 percent, the increase was equivalent to one million arrivals, and the region overall saw 56 million tourists travel there last year.

Yet operators face several challenges in tapping this opportunity. One of the most important of these is the capability to have an instantaneous view of a user's connectivity needs and to serve those needs in a relevant and timely way. This involves using real-time data to, first, deliver a superior quality of experience for each user, and, second, provide personalized offerings for new services. Fortunately, new technology and service advancements are now enabling operators to overcome this challenge, and they promise to unlock a valuable market segment across the Middle East and Africa.



**Nour Al Atassi**  
Regional Vice President and  
Managing Director, Middle East  
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Syniverse





Syniverse, through experience as a specialist in both roaming and real-time intelligence, has developed seven best practices to help operators excel in improving customer satisfaction and delivering personalized offerings. I invite you to read through the steps below and consider how they can add value in increasing data roaming usage.

**1. Act in real time** - It's critical to have a real-time snapshot of when, where and how users need connectivity options – and to act on this. If a traveler, for example, lands in a foreign country and plans to purchase a local SIM card instead of investigating other options, that user's operator must be prepared to detect the user's arrival and proactively text her with a personalized offer that enables roaming at a competitive price, all before she even considers purchasing a SIM card.

**2. Know Your Customers** - Operators must also understand subscribers' usage patterns and utilize this information to respond to their needs. For instance, if a subscriber has opted to allow his operator to have access to the location information for his mobile device, and his device is detected to be in a particular international city more than five times a year, his operator must be able to sense this pattern and provide a roaming plan for that city, relevant to that subscriber's exact needs.

**3. Customize Offerings** - Operators must also present highly personalized offerings. New technologies now make it possible to offer a number of tailored data usage and pricing plans that can be targeted to specific subscriber segments. These plans represent a major improvement over the more traditional one-size-fits-all plans, offering subscribers packages based on exactly how they expect to use roaming service.

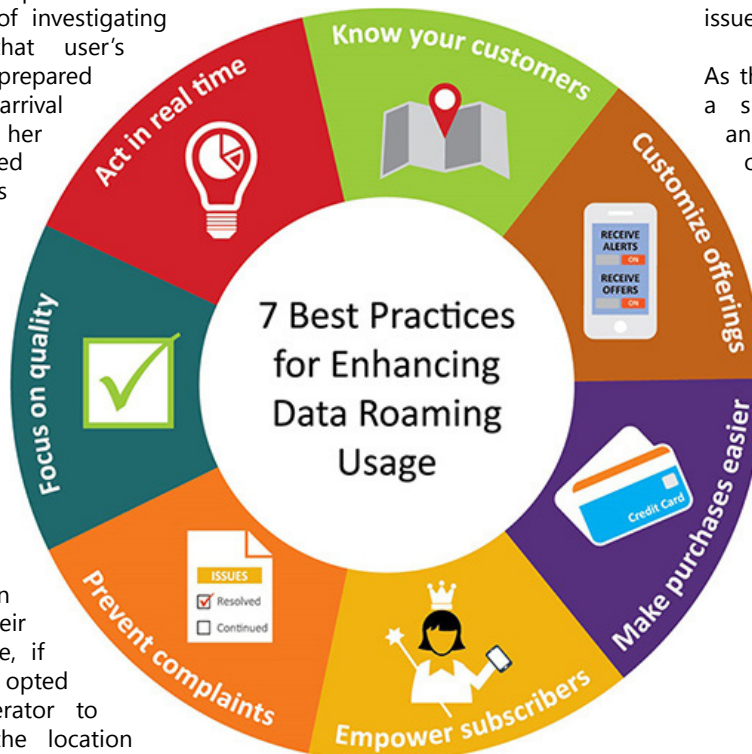
**4. Make Purchases Easier** - Another important step in driving data roaming usage is implementing purchasing options to make it as easy as possible for users to buy data packages at any time. This includes data package purchases, recharge options, and even direct operator billing options for app purchases, which enables users to purchase content through a seamless process that adds the charge directly to their mobile phone bills while roaming.

**5. Empower Subscribers** - Real-time alerting technologies now put

mitigate bill shock, but also to reduce customer complaints, negative media coverage and the risk of nonpayment of a roaming bill.

**7. Maintain Focus on Quality** - Maintaining the highest quality of service is, of course, paramount in driving increased data roaming usage, and it's especially important in today's hypercompetitive mobile market. The latest roaming-monitoring applications ensure that operators can consistently deliver top service by identifying network abnormalities – such as data registration failures and traffic patterns – and efficiently solve issues before they affect subscribers.

As these practices illustrate, ensuring a superior quality of experience and providing customized service offerings for subscribers can deliver a powerful solution for enhancing data roaming usage. Competition is fierce in the Middle East and Africa roaming market, and operators must be able to take advantage of these capabilities to maintain a competitive advantage. Above all, operators must make clear the direct connection between their subscribers and the unique value that operators can deliver to them when they roam.



the power of real-time monitoring of roaming usage control directly in users' hands, with interfaces that allow them to access usage information anytime and anywhere. This empowerment provides a powerful tool to avoid bill shock, and operators should make full use of this feature.

**6. Prevent Complaints** - Subscribers should be provided with options to set spending or apply usage thresholds for data services, and to receive automatically generated mobile messages as they approach these thresholds. New technologies enable this through simple but dynamic tools that operators can use to not only



## ▼ WHOLESALE NEWS

### WHOLESALE UPDATES

#### National plans on roaming are 'a joke', EU says

The EU's digital economy chief has branded government proposals on mobile roaming charges "a joke", accusing them of watering down EU plans to scrap roaming charges and improve regulation of the Internet. Andrus Ansip, digital single market commissioner, accused governments of "a lack of ambition" in their approach to the revision of the EU's telecoms legislation. The so-called telecoms package, put forward by the previous commission, promised to end roaming surcharges when calls are made or data is sent and received outside of the home country of the subscriber. The proposal was backed by the European parliament in spring last year when MEPs voted to end roaming surcharges by December 2015. But member states earlier this month agreed to row back on the commission's proposal to scrap roaming charges, instead arguing that "a transitional period is needed to allow roaming providers to adapt to wholesale market conditions". Governments said companies should be allowed to apply surcharges after the bill took effect in 2016. "On roaming, I cannot support the very limited basic allowance of Council's current reply to people's call for the complete abolition of roaming charges," said Ansip. "It is a joke." "We must definitely go further. We should remember our ultimate aim: the full and

swift abolition of roaming surcharges – and not only their reduction," he added. "The commission's position is clear. We need to abolish roaming charges as soon as possible. We need strong net neutrality rules." Ansip also urged lawmakers to take a tougher stance on net neutrality. Governments agreed to include a series of exceptions in the bill under which Internet providers can slow down access to content and applications and promote "specialized services", which Internet campaigners say goes against the principles of a free Internet. "On net neutrality...we need to make sure that the internet is not splintered apart by different rules. This is why we need common rules for net neutrality," said Ansip. "Then, we need an open internet for consumers. No blocking or throttling." Ansip will present the commission's policy priorities for its Digital Single Market Strategy on Wednesday (25 March). A digital single market was one of the ten main priorities set out by Jean-Claude Juncker's new commission on taking office last autumn. But the Commission itself has not presented a united front on Internet regulation, particularly net neutrality. Last week, Gunther Oettinger, also a digital agenda commissioner, compared net neutrality campaigners to the Taliban. There are now trilogue negotiations with the European Parliament and ministers, mediated by the EU executive, in a bid to strike a deal on the bill.





## East Africa Partner States Slash Roaming Charges On SMS

The cost of an SMS while roaming in Rwanda is US cents 12 in bundles and US cents 22 out of bundle; Uganda US cents 12 in bundle and US cents 22 out of bundles while in Kenya sending an SMS will cost US cents 11 in bundles and US cents 20 out of bundle. According to the East African, the cost of sending a text message across borders will be cheaper for mobile phone subscribers in Kenya, Uganda and Rwanda after the three countries agreed to remove tariff charges for short message services (SMS) in a bid to fully implement the One Network Area protocol they adopted last year. East African member states have agreed to slash these cost to a wholesale price for SMSs within the region at not more than US 3 cents per SMS, inclusive of all applicable taxes, while the retail price shall not exceed US 6 cents per SMS. The retail rate is the cost incurred in distributing SMSs and calls within a country while the wholesale rate is the agreed interconnection rate between networks. The new charges were agreed on by the partner states at a meeting of regulators held on March 5 based on their consultations with the operators before the resolution was adopted by Presidents Uhuru Kenyatta of Kenya, Yoweri Museveni of Uganda and Paul Kagame of Rwanda. The drop in roaming charges is expected to stimulate growth in the telecommunications sector and promote cross-border trade. Kenya, Rwanda and Uganda are expected to bar all the unregistered SIM cards from accessing network services. A team of experts is currently working on data roaming transactions and pricing among operators and the new rates are expected to be adopted at the next summit scheduled for next month. These forms of continued improvements are why the East African community is relevant to every East Africans today.

## Mobile Data Traffic Booms In Hungary As Telecom Authority Plans Drastic Cut In Termination Fees

The National Media and Telecommunications Authority (NMHH) will cut the wholesale mobile termination fees of mobile service providers by 76% as of April 1, NMHH

chief Mónika Karas announced on Wednesday. The fee payable by the service provider of the party initiating the call to the provider servicing the call recipient will drop to HUF 1.71 per minute from HUF 7.06 at present. Termination fees in Hungary will be the second lowest in the European Union as a result of the cut, Karas said. The cut will not have any direct bearing on retail prices, but it is expected to generate competition that could lead to lower prices, said regulation director Nándor Beke. Meanwhile the Central Statistical Office (KSH) said that mobile data traffic in Hungary rose by an annual 35% in the fourth quarter, lifted by infrastructural developments and the growing number of smartphones. In absolute terms, mobile data traffic reached 9,135 terabytes in the last quarter of 2014, still a fraction of the 274,428 terabytes of downloads and 146,849 terabytes of uploads using fixed lines. Mobile internet subscriptions accounted for 65% of all internet subscriptions at the end of last year, up 2.4% points from a year earlier. Overall internet subscriptions rose by 12% to 7.2 million. Concentration of the market increased, with seven ISPs accounting for 93% of all subscriptions. The number of mobile phone subscriptions reached 11.8 million by the end of December, increasing 120,000 in a year. About 55% of the total was post-paid subscribers. About 8.1 billion phone calls were made last year, practically level with the number in 2013. In the fourth quarter, subscribers spent 422 minutes on average talking on the phone. Net revenue of the telecommunications sector came fell by 3% to 203.7 billion forints in the fourth quarter from the same period a year earlier.

## Balkan regulators confirm cuts in mobile roaming fees of 50-70%

Montenegro's Agency for Electronic Communications and Postal Services announced the timetable for the reduction of roaming fees in the Balkan region. This follows a consultation with local operators Crnogorski Telekom, Telenor and m.tel. The decision is based on the agreement on reducing roaming fees signed between the ministries responsible for electronic communications in Bosnia and Herzegovina, Macedonia, Serbia and Montenegro. The decision sets maximum wholesale and retail prices of roaming services over three periods: from 30 June 2015 to 30 June 2016, from 01 July 2016 to 30 June 2017 and

from 01 July 2017 onwards. From 30 June this year, the maximum retail price of an outgoing call will be EUR 0.29/minute (50% reduction on average price); incoming calls will cost EUR 0.08/minute (70% drop); text messages will cost EUR 0.09 each (50% drop) and data services will cost EUR 0.70/MB (70% drop). Identical decisions on lowering the roaming prices have also been adopted by the regulators of electronic communications in Serbia (Ratel), (FYR) Macedonia (AEK) and Bosnia and Herzegovina.

## Roaming charge ruling is not acceptable

Foyle MLA, Maurice Devenney, has called for the proposed EU ban on roaming charges for mobile telephones to be put in place as soon as possible. The MLA said it had originally been agreed to end roaming charges at the end of 2015, but it now appeared those within the European Union had moved to block those plans. Condemning this, Mr Devenney said: "I am hugely disappointed at the EU government for blocking plans to stop roaming charges. "This is a very pertinent issue for those of us who live along the border area with the Republic of Ireland, where many of our telephone networks connect up to masts in the Republic and this can often lead to customers paying between £150 and £300 to phone companies on top of their network tariff. Without knowing, people are being charged international rates for domestic calls. "The EU has now voted to end roaming charges in 2018. It is wrong and I am opposed to this change."

## Prepaid data roaming plan launched by Singtel

The Republic's first prepaid data roaming plan, which will let customers use the Internet overseas without worry and bill shock, was launched by Singtel today (March 10). Under hi!DataRoam, customers can purchase 100MB bundles of roaming data in five countries, namely Malaysia, India, Indonesia, Hong Kong and China. The data bundles range in price from S\$10 to S\$30, and are valid for use within seven days from the date of activation. Customers have the option of pre-purchasing the data roaming plan before travelling by dialling \*100#. To maximise usage on the data bundle, they can also choose to activate it upon arrival in the country. They will also receive SMS reminders when 50 per cent, 80 per cent and 100 per cent





of the data plan has been used up. The Singtel prepaid mobile SIM and top-up cards are available at all Singtel Shops, selected authorised prepaid retailers, SingPost, 7-Eleven, Sheng Siong Supermarket and Singapore Changi Airport.

## MP sues government over Interconnect Clearing House

Member of Parliament for Obuasi West, Kwaku Kwarteng, and two other persons have filed a suit at an Accra High Court seeking to put a stopper on the Interconnect Clearing House program until all issues are put right. The suit, which has one Elijah Adansi-Bonah, a subscriber to the telecommunications services and Development Data, a policy research and advocacy institution, as being among the plaintiffs, cites the NCA and Afriwave Telecom as well as all telecom (mobile phone service) providers as the defendants. The suit, filed on March 5, 2015 by their solicitors Sory at Law, also invites the Attorney-General as an interested party. The plaintiffs want a declaration that the NCA's decision to constitute Afriwave Telecom Ghana Ltd as all the telecoms companies for the ICH program is "unlawful, unreasonable and in breach" of the authority's "constitutional obligation" to the plaintiffs "to act fairly, reasonably and in accordance with law." They want another declaration that the NCA's decision to constitute Afriwave Telecom Ghana Ltd as all the telecoms companies for the ICH program "unjustifiably interferes with plaintiffs' fundamental human right to freedom from interference with their communication and correspondence," or in the alternative, a declaration that the action of the regulator "has the likelihood of interfering unjustifiably with plaintiffs' fundamental human right and freedom from interference with their communication and correspondence." The plaintiffs are therefore seeking an "order of perpetual injunction restraining the defendants from implementing and or executing" the NCA's decision to constitute Afriwave Telecom Ghana Ltd "as a mandatory Interconnect Clearing House for all telecommunications service subscribers in Ghana." They also averred that if the NCA finds the need to appoint Afriwave Telecom Ghana Ltd to support telecommunications service providers who have difficulty satisfying their interconnect obligations "then the subscription to those interconnect

services ought to be done non-mandatory business decision of each telecommunications service provider."

## Mobile phone roaming charges now won't be scrapped in the EU until 2019

Mobile phone roaming charges will not be scrapped in the European Union until at least the end of 2018, under new plans put forward by European governments. Under previous proposals brought forward by the European Commission and European Parliament, charges would have been phased out across the 500m-citizen bloc by the end of this year. But ministers from national governments, who have to sign off on all proposals from the Parliament and Commission, have vetoed the plan and called for a delay until at least the end of 2018. A spokesperson for the European Commissioner for Digital Economy told the Independent that only certain countries on the council were blocking the deal, but refused to say which ones. A spokesperson for the European Council, which called for the delay, also refused to say which countries' ministers had blocked the phasing out of charges. Council minutes are not made public. The Council spokesperson said ministers from some national governments were worried that domestic prices would go up to compensate operators' bottom lines as profitable roaming agreements were ended – what she called a "waterbed effect". "The vast majority of people stay in their country and if domestic prices went up, it would be to the detriment of all consumers," she told the Independent. She also noted that certain countries that hosted more tourists, mainly in southern Europe, would lose out from the deal, causing an "imbalance". Under rewritten transitional plans put forward by the Council of Ministers, consumers would be given a new "roaming allowance" within which they could use their phones at their own domestic rates. Once this allowance was used up, roaming fees could also not be higher than the maximum wholesale rate that operators in the host country paid. Under the new plans total abolition of roaming charges would be looked at again mid-2018, though there would be no guarantee that they would be removed then. New laws would be proposed at this point – a process that could take months or years. The Council's transitional plan,

which would come into effect from 30 June 2016, has now gone back to the Commission and Parliament who will make their own amendments to it. A European Commission spokesperson said it expected the Council to agree to a clear timetable for the phasing out of charges, a detail which is not included in the Council's latest plans.

## China Mobile Expands Telcos divided over minimum on-net tariff proposal

Adom News can confirm that smaller telcos in the country, led by Airtel Ghana, are seeking cover under the National Communications Authority against low tariff promos by the bigger telcos while Vodafone and Tigo fight back. Airtel actually wrote to NCA and proposed a number of regulatory regimes including controls on off-net (calls from one network to another) and on on-net (calls within same network) tariffs and the need to declare a significant market player (SMP) as a tool to control competition. Subsequent to Airtel's proposal, NCA implemented a 4Gp per minute minimum interconnect rate, which was accepted by all, and then asked each telco to do their respective position papers on the on-net bit. Meanwhile, the telcos were not aware that it was Airtel that made the proposal to the regulator. It turned out that, market leader- MTN- took a neutral position, apparently because it has the numbers to survive whether on-net is controlled or not. Meanwhile, second and third largest telcos- Vodafone and Tigo- were opposed to it. Glo hurriedly joined Airtel in supporting the proposed protectionist policy. But the irony of the whole matter is that the smallest telco, Expresso is said to be opposed to the move to control on-net tariff, which is meant to protect smaller telcos. NCA still went ahead and proposed a minimum on-net tariff of 4Gp per minute and that has divided the front of the telecom industry to the extent that two of the telcos are currently in court fighting the move. Adom News has since spoken with an official of Glo on grounds of anonymity, who said Glo had no idea it was originated by Airtel. They thought it was an NCA policy and "we do not want to be seen as opposing the regulator." The Glo official, however, stated that "we think it is not good for the consumer and the regulator to be seeking the interest of the consumer. This industry is already over regulated," the Glo official said.



The Head of Legal and Corporate Affairs at Airtel Ghana, Hannah Agbozo admitted that Airtel did write to the NCA and made those proposals to ensure the general sustainability of, and fair competition in the industry. She told Adom News Airtel is more than happy to be associated with initiating such “laudable” policies that promises to secure the future of the telecom industry because “we think NCA cannot supervise the collapse of this industry.”

Hannah Agbozo explained that, currently, even though most telcos in the country are not profitable, telcos with the larger number of customers are engaging in “predatory pricing” and that is forcing the smaller ones to also reduce their tariffs in order to keep their customers. “The bigger telcos are actually using their promotions to price under cost for on-net calls because they know they can depend on the interconnect payments from the smaller telcos to survive. But the smaller telcos do not have that luxury, so there is need for the regulator to step in and stop the unfair competition practices,” she said. Whereas she agreed that there were too many telcos in a small market like Ghana, and so eventually some might collapse, she thinks the collapse of weaker telcos should be allowed to happen naturally, under fair competition conditions, and not be forced by predatory pricing or what she called a clubbing effect. Hannah Agbozo pointed out that the telecom industry is a capital intensive one and heavily dollarized, where almost 100% of its implements were imported. And there is an added challenge of high cost of fuel under the “dumsor” situation. So the price war is actually threatening to collapse the industry. “If I was NCA, I would step in and control the situation because under such circumstances, all the necessary legal instruments and international best practice rules exist for any regulator to intervene and ensure fair competition and sustainability,” the Airtel Legal Director said. Hannah Agbozo said Airtel is also convinced that eventually the NCA would have to declare a significant market player (SMP) and use it as a tool to control competition in the larger interest of the entire industry. “But until we declare an SMP, I think the control of on-net tariff is a lower hanging fruit that promises to yield some immediate positive results, so we support the NCA in going for that option,” she said. Meanwhile, Vodafone and Tigo have taken the matter to the Electronic

Communications Tribunal seeking to thwart the move because they believe it is not in the interest of the consumer, who deserves the freebies if a telco can afford it. The tribunal is yet to set a date for hearing to begin.

## Domestic Coverage, Roaming on 4G

A major chunk of the customer gain is attributable to the company's extended service coverage. Moreover, the operator has also launched 4G international roaming services in 71 countries and regions, forming the biggest 4G network globally. China Mobile has, of late, been enjoying strong customer growth. The world's largest telecom carrier by subscriber base reported substantial addition of 4G customers in January. China Mobile closed the month's tally with over 700,000 4G base stations, covering over one billion people. Moreover, the sales of 4G terminals exceeded 100 million. Notably, the telecom operator's 4G network has realized uninterrupted coverage in the majority of cities and towns. Further, China Mobile now aims to accelerate its efforts to spread the coverage of LTE international roaming services and is striving for 100% coverage in countries and regions with sufficient surroundings. Meanwhile, in network technologies, China Mobile plans to enhance the commercialization of LTE-Advanced, and amplify the rate from 100 Mbps to 200 Mbps, 600 Mbps and even 1 Gbps, in the long term. Moreover, the company also looks to promote the expansion of 3D-MIMO, network optimization with big data, interference elimination, software-defined networking (SDN) and network functions virtualization (NFV) technologies. In 2015, this Hong Kong-based company plans to build 1 million 4G base stations, and realize full coverage in the country by the end of the year. The operator also aims to raise the number of terminals sold by 250 million of which 4G terminals would account for 200 million. In addition, China Mobile aims to enlarge the 4G customer base to 250 million.

## China Mobile Launches 4G Roaming Services in 71 Countries and Regions

China Mobile's fourth-generation telecom network has accumulated over 100 million domestic users since its launch in December 2013 and opened

4G international roaming services in 71 countries and regions, Sha Yuejia, Vice President of China Mobile (HKEx: 941) (NYSE: CHL), announced at the Global TD-LTE Initiative (GTI) International Summit during the Mobile World Congress (MWC) on March 3, 2015, in Barcelona, Spain. “The development of TD-LTE in the past year exceeded our expectation. It only took China Mobile one year to build the biggest 4G network in the world,” Sha Yuejia said. By the end of January 2015, China Mobile has built over 700,000 4G base stations, and realized continuous coverage in most cities and counties as well as hotspot coverage in developed villages and towns. The sales of 4G terminals exceeded 100 million and its 4G users topped 100 million as well. Around the globe, China Mobile has launched 4G international roaming services in 71 countries and regions. Speaking of plans in 2015, Sha noted that China Mobile plans to build 1 million 4G base stations by the end of the year and realize full coverage in the country; step up efforts to expand the coverage of LTE international roaming services and strive for 100% coverage in countries and regions with adequate conditions; increase the terminal sales by 250 million, among which the sales of 4G terminals would reach 200 million; and expand the 4G customer base to 250 million. In network technologies, China Mobile will accelerate the commercialization of LTE-A, and increase the rate from 100Mbps to 200Mbps, 600Mbps and even 1Gbps somewhere down the road. Meanwhile, the company will promote the development of technologies including 3D-MIMO, network optimization with big data, interference elimination, NFV and SDN. In terms of terminal related technologies, China Mobile will further support the TDD/FDD integration and enable more terminals and chips that support mainstream modes and frequency bands, VoLTE, RCS and key features of LTE-A. With regard to services, Sha pointed out that China Mobile has been focusing on the commercialization of Converged Communication and the exploration of information services such as Internet of Vehicles, Mobile Healthcare and Mobile Education. Off the podium, several innovative products released by China Mobile and its partners grabbed the spotlight of the 2015 MWC: The product plans for 5-mode processors with a low cost of 50 Euros include Qualcomm 8909, Marvell PXA1908, MTK 6735P, Spreadtrum SC9830A and Leadcore LC1860C. China Mobile,



together with Samsung, HTC, Coolpad, Qualcomm and K-Touch, released six Native terminal models and chip solutions that support the integration of the Converged Communication functions. By updating the network, users are capable of enjoying HD audio and video services, seamlessly integrated multimedia information, conventional messages as well as more social functions without changing their communication habits and the terminal interface. China Mobile also worked with OnStar of Shanghai General Motors to launch a series of cutting-edge 4G connected car services, which include 4G-enabled onboard high-speed Wi-Fi access, i-Call (HD audio and data synchronization), real-time navigation, remote update, remote diagnosis, vehicle maintenance appointment, etc.

Founded in 2011, GTI now boasts 116 operator members and 97 manufacturer partners. Globally 52 commercial TD-LTE networks have been put into use, and 83 operators are in the phase of construction and deployment. The scale of base stations has exceeded 1 million, commercial terminals over 1200 models, and customer base over 110 million.

## Let roaming fees hang around for a while longer, EU countries say

The Council of the European Union – the part of the EU legislature that represents member states – has formally laid out its stance on changing incoming legislation around roaming and net neutrality. This means negotiations with the European Parliament can formally commence, and as some parliamentarians warned on Tuesday, this will be a feisty fight. The Council's position opposes the Commission and Parliament's original intention of eliminating roaming surcharges for those travelling within the EU by the end of this year. Instead, from mid-2016 people would get to use a "basic roaming allowance" when crossing borders that would be the same as domestic mobile costs. Above that, operators will be able to charge extra for roaming, but not more than the wholesale costs levied by the carrier whose network is being roamed onto. It would only be in mid-2018 that member states would ask the Commission to "assess ... what further measures may be needed with a view to phasing out roaming charges" and then maybe propose new laws. In

other words, the Council wants the abolition of roaming fees to be put on ice, despite the widespread push for a European digital single market. As for net neutrality, "agreements on services requiring a specific level of quality will be allowed, but operators will have to ensure the quality of internet access services." Again, this does not gel with the strict rules passed by the European Parliament last year, but EU digital chief Andrus Ansip, who is more bullish on the issue of the single digital market, has indicated that he is more sympathetic to this particular compromise. If the Parliament is to successfully push back against the watering-down of the roaming proposals, a majority of parliamentarians will need to join the fight. So far, the second- and fourth-largest blocs in the European Parliament (the Socialists and Democrats and the Liberals and Democrats respectively) have both indicated that they will fight the Council hard. The largest bloc, the center-right European People's Party, has also previously taken much credit for shepherding through the reforms, and the single-market-motivated Commission will no doubt be right behind them. The net neutrality situation looks a bit less clear-cut.

## Commissioners call for EU unity on roaming, spectrum

European Commissioners responsible for digital affairs are jointly appealing to member states to stop resisting efforts to end surcharges for mobile roaming and spectrum harmonization. "It does concern me that we may end up with a lack of provisions for spectrum and not enough ambition on roaming and net neutrality," Vice-President for the Digital Single Market Andrus Ansip yesterday (2 March) told delegates at Barcelona's Mobile World Congress (see background). Ansip's comments will be reflected in a speech today by Günther Oettinger, the Commissioner for Digital Economy and Society, in a speech laying out the EU's vision for 5G telecommunications development. The Estonian politician said a poor result on roaming and spectrum "would not reflect the significance, ambition and urgency that EU heads of state gave to the single European telecoms market in October 2013". The European Parliament voted last year to end roaming fees within the EU by the end of 2015, but the legislation still needs approval by member states in the EU Council. Member

states are squabbling, because their relative charging rates vary greatly. For example, eastern European countries with cheaper charges for local calls fear operators will increase prices for such domestic calls unless these operators see a corresponding reduction in the tariffs they pay other operators when their customers travel abroad. The timing is sensitive, because member states are finalizing their positions before commencing trilogues with the European Parliament next week. On spectrum, Ansip said "the more that this natural resource is divided, the less efficient it is, that is the situation we have today". Coordination of European spectrum is vital for the future Telecom Single Market, Ansip said, and also for the development of 5G mobile communications.

## TRAI proposes to slash voice & SMS roaming charges

Full mobile number portability (MNP), interconnectivity charges between mobile and landline usage slashed, what's next? Slash roaming call charges and roaming SMS charges! The TRAI is on a rate-slashing rampage with its latest amendment called the Draft Telecommunication Tariff (Sixtieth Amendment) Order, 2015. In the amendment, TRAI has proposed to slash roaming call and message charges for teleoperators by 30% and 80% respectively on maximum rates charged for the above. Outgoing call charges while on roaming have come down to 65 paise per minute from the previous 1 rupee while STD calling during roaming has been reduced from Rs 1.50 to Re 1 per minute. Incoming calls on roaming will be restricted to 45 paise per minute as compared to 75 paise currently, and SMSing will get cheaper from Rs 1.50 rupees to 25 paise per SMS on roaming. The current proposal awaits a nod and will be finalized after a stakeholder meeting and review by March 13, 2015. The slashing of these ceiling charges may mean cheaper roaming calls and SMSes for all those who travel frequently or use a phone number not native to their telecom circle. Interestingly, telecom service providers make Rs 8000 crores from roaming charges levied on subscribers, which a report from ET states, makes up less than 8% of the mobile industry's revenue.





## M-money service providers should encourage a more active usage of basic m-money services to grow ARPU



**Stela Bokun**  
Manager, Custom Research  
**Analysys Mason**

Most registered m-money customers in emerging markets do not use the service actively. Those that do, typically use only basic services, such as peer-to-peer m-money transfer and airtime top-up. Meanwhile, the operators that offer these services continue to expand their portfolios with more advanced mobile financial services, such as merchant payments, bill payments and micro-loans. Some operators are even considering partnering with OTT players to include a social element into their m-money offerings for the unbanked. These next-generation services typically see poor adoption levels and they rarely generate much revenue for the operators.

We believe that operators should refrain from further diversification of their m-money service portfolios until they successfully convert a significant proportion of their registered m-money customers into active users of basic services. Operators can do this by investing into improved access and customer experience at the agent level. *Even the most popular m-money operations globally suffer from poor usage levels.*

Some operators (see Figure 1) have seen relatively high adoption levels among unbanked customers in emerging markets. However, on average, only about 30% of registered m money customers are active users. With the exception of Safaricom's M-PESA, the difference between registered and active users of m-money services is striking.

*Operators should improve access and provide more training to their m-money agents to increase usage levels*

	Registered users (million)	Estimated active <sup>2</sup> as a % of registered users	M-money revenue as a share of mobile revenue
Safaricom, Kenya	20 (Sep-14)	65% (12.3m active)	20.6% for 6M ending Sep-14
MTN, Uganda	~15 (Jun-14) <sup>3</sup>	44% (6.8m active)	14.7% for 6M ending Jun-14
Vodacom, Tanzania	~17 (Mar-14)	35% <sup>4</sup> (5.9m active)	18.8% for FY2014 ending Mar-14
Airtel Money, Africa (various markets)	~30 (Sep-14)	~17.7% (5.3m active)	n.a.
Tigo, Africa (various markets)	~28 <sup>5</sup> (Dec-14)	22% (6.1m active)	7.7% in 2014

1. *Mobile Financial Services for the Unbanked: 2013 State of the Industry*, GSMA.
2. *Active users of M-PESA have used the service at least once in the last 30 days, while active users of other operators have used the m-money service at least once in the last 90 days.*
3. *Estimate based on the total number of registered users of m-money services in Uganda according to Bank of Uganda's 1H 2014 report and MTN mobile money market share estimate.*
4. *Estimate made based on the Tanzanian market average presented in "Mobile Money in Tanzania"; GSMA infographics from March 2014. Tigo's registered customers in Africa are an Analysys Mason estimate.*

There are a number of ways for operators to improve m-money usage levels; improving access to the service and user experience are among the most obvious and should take priority over launching innovative services that are targeting niche user groups.

► *Building the agent network in rural areas would make the service accessible to those that may benefit from it the most and result in increased usage*

While most large m-money operators report seemingly impressive figures regarding their agent network reach, in reality, even in the key m-money countries, rural population struggles with access to the service. Many rural customers who register for the service eventually turn into inactive users as there are no m-money agents in their vicinity.

- According to GSMA, only 12% of rural population in Tanzania lived within five kilometres from a financial access point (including an m-money agent) at year-end 2013.

► *Training m-money agents to provide better customer experience and encourage usage among first-time customers would result in more active users, too*

Completely new services, such as m-money, often encounter the scepticism and resistance from potential users. When this is combined with poor customer service, usage levels suffer.

- In Uganda, users complain about the lack of transparency regarding m-money tariffs since there is no physical display of service costs at most agent locations.
- According to an m-money end-user survey in Tanzania from February 2013, 51% of rural registered users reported problems with their agents in the past: 26% reported the agent was absent, 24% reported that the agent did not have any or enough cash, and 23% reported that the agent did not have any or enough e-float.

Furthermore, operators should train the agents to encourage usage among first-time customers. Users who complete their first transaction at registration are both likely to stay active and have higher ARPU.

- One m-money operator reported that 30% of registrants who did not complete their first transaction at registration have never used the service at all.

The impact of m-money service on revenue could be significant if more users were active and m-money providers should redirect their investments from boosting their service portfolios to increasing active usage of basic services. In the example of Safaricom's M-PESA a 10.8% increase in the number of active users and a 10.9% growth in the number of chargeable transactions per month per active user, resulted in a 24.7% growth in M-PESA revenue in 1H 2014. Meanwhile, the operator does not report separately the revenues from its next-generation m-money services; their contribution to overall service revenue is likely still negligible.

1. Source: [http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR\\_2013.pdf](http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR_2013.pdf).
2. Source: Uganda, Quicksights report mobile money consumer and agent experiences, April 2014.
3. Source: [http://www.intermedia.org/wp-content/uploads/FITS\\_Tanzania\\_FullReport\\_final.pdf](http://www.intermedia.org/wp-content/uploads/FITS_Tanzania_FullReport_final.pdf).
4. Source: [http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR\\_2013.pdf](http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR_2013.pdf).



## TECHNOLOGY NEWS

### TECHNOLOGY UPDATES

#### Broadcom Releases SoC for HD Satellite in China

Broadcom Corporation has revealed a new System-on-a-Chip (SoC) for HD Set-Top-Boxes (STBs) targeting China's Free-to-Air (FTA) satellite broadcast market. The BCM7228 SoC features 1080p Audio Video Coding Standard (AVS+) for decoding and display, more than 750 Dhrystone Million Instructions per Second (DMIPS) application, CPU and a graphics engine for 2-D graphic acceleration exceeding 300 million pixels per second. The chip is compliant with China's State Administration of Radio, Film and Television (SARFT) standards for compression. Additionally, the device provides Conditional Access (CA) and Digital Rights Management (DRM) security to protect the rights of content providers.

#### How forward-thinking utilities are adopting the Internet of Things

Most utility companies have a plan to utilize technologies that are key ingredients of the Internet of Things (IoT). As an example, the Smart Grid Sensor market will expand rapidly in the coming decade, with revenues growing nearly ten-fold, according to the latest worldwide market study by IHS. IHS forecasts that while the smart grid sensor market only accounted for less than 20 percent of total sensor sales revenues in 2014, they

will account for 75 percent of the total sensor market in 2021. The smart grid sensor market is expected to reach the \$100 million mark in 2017. To date, the market for smart grid sensors is centered mainly in North America, where there is a mixture of a few large installations and many smaller pilot projects. There's a pressing need to monitor the electric grid in real-time, and utilities are expected to gain greater value by installing smart grid sensors, which can potentially improve utility operations and performance. The United States market is estimated to reach \$30 million in 2014 -- however, annual growth from 2015 to 2021 is expected to average 36 percent. "The United States has been on the forefront of smart grid sensor market development," said Fizza Arshad, analyst at IHS. "Many factors have converged to make this happen, but one of the stronger influences was the American Recovery and Reinvestment Act (ARRA) of 2009." The ARRA provided the investment needed to install extensive grid distribution-layer communications networks. Having affordable, ubiquitous communications networks is essential to making the smart grid sensor solution come to fruition. While the current growth is centered in the United States, Europe and Latin America are also forecast to become high-growth markets. In Latin America, utilities are spending time and resources to install pilot programs to aid fault location and theft prevention. In Europe there is a particularly strong need





for renewable energy management. In fact, the influx of energy from solar and wind is creating a large demand for improved electric grid monitoring. Greater adoption of smart grid sensors across Europe is therefore anticipated, as utilities will need more granular measurements on the electricity grid, in order to efficiently integrate renewable. Overall, going from pilot programs to large-scale installations will offer more examples of successful deployments that further reveal the benefits to utilities, and thereby enable smart grid sensor technology to scale.

## MACOM Announces New 650 W GaN on SiC HEMT Pulsed Power Transistor

Technology Solutions announced the new MAGX-000912-650L00 and MAGX-000912-650L0S, a 650 W gallium nitride (GaN) on silicon carbide (SiC) HEMT pulsed power transistor for L-band pulsed avionics applications. The transistor is available in standard flange or earless flange packaging. The internally matched MAGX-000912-650L0x features 650 W of peak output power with 20 dB typical gain and 62 percent drain efficiency. The semiconductor structure is designed to achieve a high drain breakdown voltage (BV<sub>dss</sub>), which enables reliable and stable operation at 50V in extreme mismatched load conditions unparalleled with older semiconductor technologies. Other features include flat gain versus frequency performance and a common-source configuration for broadband class AB operation.

## How Uber uses Twilio to define the 'digital layer' and redefine telecoms

If you've been on one of the main social networks in the past few days, there's a fair chance you'll have seen this quote knocking around, originally from a TechCrunch article. "[In 2015] Uber, the world's largest taxi company owns no vehicles, Facebook the world's most popular media owner creates no content, Alibaba, the most valuable retailer has no inventory and Airbnb the world's largest accommodation provider owns no real estate," it reads. All very true, but it's not an especially new revelation. Consumer technology analyst Jan Dawson wrote in December 2014 about "the digital layer" transforming, but not replacing, analog products and services. Dawson cited Uber as an example of this

change, a company which is "firmly rooted in the physical world" yet uses digital technology to bring customers and suppliers together. Uber has been a phenomenal success story and ample proof of this concept in motion. Yet what isn't quite so well known is its relationship with Twilio, the cloud communications platform which enables Uber to send real time updates to its customers. It's hardly surprising that most people are in the dark about this – in fact, it's almost what Twilio wants. A Business Insider article from August had the URL tag "you don't know you're using Twilio." Jeff Lawson, Twilio CEO, tells TelecomTech: "The fact that many people use Twilio every day, even though they don't know it, makes us happy." Twilio isn't short on cool customer stories, from Coca-Cola to Sprint and Box. Yet Uber was originally built without the cloud comms provider in tow. It helps, of course, that both companies are headquartered in San Francisco, and Lawson notes how the service quickly gained a foothold, moving from "interesting" to "wow". "I don't know that anybody knew what Uber would become by now," he explains. "We were the first market for Uber and pretty immediately it became clear that the service was a fantastic one. "When Uber became clear [about] having other people also use their cars on the network, and the prices became less than taxis, and the ubiquity of these [vehicles] on the road became so high, then I think it opened up to a whole other level," he adds. For Uber, real-time cloud communications doesn't just mean being able to contact the driver directly, or sending an update to say a taxi would be five minutes late. It's about global expansion as well. Lawson explains: "Before Twilio, telecommunications was a geo-politically bounded industry. Every country with which you did business had its own set of carriers, its own world. And that meant as you expanded your presence, if you opened up business in a new country, you had to go and do business development with the local carriers to communicate with those customers." As Uber is now open for business in 55 countries, there just isn't enough time to liaise with the local carriers, buy a bunch of phone numbers, wire them up to PBXs and get the data centers to put them in. "I think this is a big part of what we offer Uber, the ability for them to grow at the rate of their ambitions and not be held back by communications infrastructure," Lawson says. This overall replacing of dumb technologies for real-time telecommunications is a key part of Twilio's – and Lawson's – vision. It's disruptive, but not obtrusively disruptive – and Twilio will hope to

continue to redefine communications infrastructure in that manner.

## Operators, vendors in bid to strike G.fast gold

An industry group composed of major European telcos and vendors has launched a project to develop high-speed copper backhaul solutions based on G.fast. Celtic-Plus' Gigabits Over the Legacy Drop (GOLD) project aims to push the maximum throughput of G.fast, which can deliver 1 Gbps on copper loops of 100 meters or less, by using higher frequencies to carry more data. The work builds on Celtic-Plus' Hybrid Fiber-Copper Connectivity using G.Fast (HFCC/G.Fast) project, which helped towards the standardization of G.fast. The GOLD project, which boasts 12 members including BT, Orange, Ericsson, Adtran and Sckipio, among others, said their work will concentrate on proving G.fast can be used as a cost-effective alternative to fiber-based backhaul in city centers. "G.fast is quickly turning into a key technology for European operators," said Trevor Linney, head of access network research at BT, in a statement on Monday. "During our lab evaluations, it has outperformed our expectations in terms of bitrate and reach for fixed-line subscribers. Now we have formed the GOLD project to drive further improvements in the capabilities of this exciting technology, working closely with vendors and other global operators," he said. The three-year project is due to be completed by December 2017 at a cost of €4.4 million. GOLD project participants: BT, Orange, Adtran, Alcatel-Lucent, Ericsson, Sagemcom, Telnet Redes Inteligentes, Marvell Semiconductors, Sckipio Technologies, and researchers at Lund University and TNO.

## Alcatel-Lucent to deploy 100G fibre-optic network for Chua Wei

Alcatel-Lucent and Chuan Wei have revealed that they will deploy Cambodia's first 100G fibre-optic data network as the country invests in communications infrastructure to meet increasing demand for broadband access. The French-US vendor is building a 100G dense wavelength division multiplexing (DWDM)/optical transport network (OTN) for Chuan Wei using its 1830 Photonic Service Switch (PSS) platform, which will provide the operator with capacity while paving the way for



400G capacity in the future. At the same time, the nationwide DWDM network will connect to a submarine cable landing station. 'We recognised the need to upgrade our network to meet customer expectations for ultra-broadband connectivity and high reliability especially as it pertains to international reach through Chuan Wei's submarine cables,' commented Eric Lee, Chuan Wei's executive director, adding: 'We were looking for a network with significant increase in capacity, even more reliability, and a high degree of scalability to prepare our network for 400G and beyond.' TeleGeography's GlobalComms Database notes that Chuan Wei is participating in the construction of the 25,000km Asia Africa Europe-1 (AAE-1) submarine cable, which is scheduled for completion towards the end of 2016 and will run from Southeast Asia to Africa and Europe. Meanwhile, in June 2014 Chuan Wei partnered with Japan's NTT Communications to link Cambodia to the Asia Submarine-cable Express (ASE). The 7,800km cable system already connects Japan, China, the Philippines, Singapore and Malaysia.

## LTE broadcast will be better than television

Swedish technology giant Ericsson Speaking at an event in London, execs from Swedish infrastructure provider Ericsson and the UK's biggest mobile operator, EE, provided their insights on market convergence of TV, broadband, and mobile players, and the opportunities this opens-up for LTE broadcast... Thorsten Sauer, Ericsson's Head of Broadcast and Media Services, said the firm predicts 50% of all content viewed will be on



mobile devices and on-demand by 2020. Telecommunications giants such as BT are preparing for this monumental shift to mobile and are looking to converge services to offer quad-play packages of TV, mobile, landline, and broadband. BT has put

in a bid to acquire EE's assets whose Senior Manager of Network Strategy, Matt Stagg, was at the event to provide their view of where the industry is heading and how EE is preparing itself to a huge rise in demand of entertainment services on its network. "3G was a voice and text service with data, which was high-speed data for browsing, and it did some video," Stagg said. "Now [with 4G] we're talking of a video distribution network that needs to support communications." It's clear that EE believes video will be a huge part of what their network will be geared to deliver in the coming years, which is little surprise if the BT acquisition passes regulatory bodies. "The biggest fundamental shift we will see in the next decade for mobile distribution of TV is LTE broadcast. EE's vision for LTE broadcast is that it will be better than TV," he said. As we reported nearly two years ago, Ericsson sought to acquire UK-based broadcast firm Red Bee Media. This acquisition was completed in May last year, and goes to show how seriously the vendor is taking video. In fact the vendor claims it now handles 1.6 million media assets per year for numerous broadcasters including the BBC, BSkyB, BT Sport, Canal Digital, Channel 4, and UKTV. However, Ericsson has performed recent studies into the consumer appetite for TV and video on their mobile devices and found that current data limits and costs are providing the barriers to its usage. Despite this, the appetite is there and consumers increasingly want more personalised TV viewing, on-demand content and catch-up services. The main benefit presented by LTE broadcast is the ability to simultaneously distribute live content to an almost unlimited amount of users without running into capacity issues of each user watching individual content. It is clear that Ericsson and EE see this as a huge opportunity, and it will be interesting to see how this space develops over the coming years.

## Indus to convert Delhi Street lights into telecom towers

Indian tower infrastructure firm Indus Towers is planning to spend INR2.2 billion (USD35.1 million) over the next three years to convert 3,000 street light poles in New Delhi into telecom towers, the Economic Times writes. Indus will install 2G/3G/4G wireless technologies on around 1,000 poles per year across the New Delhi

Municipal Corporation (NDMC) area. In addition, the poles will be upgraded with more energy-efficient LED lights, CCTV cameras, Wi-Fi access points and will be connected to fibre-optic networks for backhaul. Commenting on the project, Indus CEO BS Shantharaju said in a statement: 'We will continue to work with NDMC and all other authorities to create a robust and efficient next-gen digital services network with maximum ease and optimum costs.'

## Huawei, SAP work on Internet of Things development

Chinese telecoms giant Huawei has struck a deal to work with German Software Company SAP to develop new technologies for the nascent Internet of Things (IoT). The companies said they will set up "joint innovation efforts" in Shenzhen, where Huawei is based, and in Walldorf in Germany, home to SAP, for IoT research. Huawei chief strategy officer William Xu said the companies are trying to develop "a model of China-Europe cooperation". The companies have been working together since 2012 on projects including getting SAP's HANA in-memory technology running on Huawei's hardware. The companies said that as part of the extended deal they will focus on developing packaged offerings for customers including those in the maintenance and warning services industries in China and Europe. They plan to integrate Huawei's cloud data and enterprise networking offerings with SAP's Business Suite 4, HANA, and cloud applications. The deal was announced at the CeBIT tech show in Hannover, which this year has China as its 'country partner', reflecting increased interest from European companies that want to profit from the growing Chinese market and also Chinese companies that are looking to sell more into Europe. [zdnet.com](http://zdnet.com)

## Antenna technologies are crucial to increasing LTE capacity

Globally, operators are experiencing ever-growing demands for reliable communication, fast speed and stable cellular services from their users. The key to resolving this conundrum lies in increasing the network capacity. Historically speaking, operators have been carving out additional capacity



from three major resources: increasing spectral efficiency, expanding spectrum, and adding cells or sectors to existing network infrastructure. As capacity is determined by signal-to-interference-plus-noise ratio (SINR), to achieve maximum throughput requires technologies for minimizing noise and maximizing interference suppression in the RF path. In the following paragraphs, I will be shedding some light on the most-deployed antenna technologies that tackle issues in those areas. For operators who have deployed LTE networks, they realized LTE is much more sensitive to interference. For this reason, RF engineers have to pay extra attention when it comes to designing cells for LTE and in the specifications of antennas selected. When an operator deploys an LTE network in a new band, they typically replace the old antennas with new ones having more antenna arrays in the same radome thereby providing additional ports for the new LTE band. Increasing the capacity of a site without out adding new radomes has the benefit of minimal impact to site leasing costs, wind loading and aesthetics. However, that addition of more antenna arrays in the same radomes is challenging as the interaction of the arrays can degrade beam pattern performance impacting the service quality of the existing network. Therefore, it is critical that an operator assure any new multi-band antennas deployed in a network have equivalent or better performance than the antenna being replaced. Operators should keep two things in mind when choosing new antennas, that the antenna performance is characterized using a data sheet conforming to the BASTA antenna standards and that the antenna exhibit good sector sculpting performance. An antenna that exhibits good sector sculpting is one that maximizes the energy radiated inside the cell covering users and minimizes the energy radiated outside the cell creating interference to other users. The beam of such an antenna

will have superior sector-edge roll-off, front -to-back (F/B) and front-to-side (F/S) ratios. Increasing the number of sectors at a site is a cost effective way to increase capacity. Capacity can nearly be doubled by taking a 120 degree sector served by a single 65° beam and splitting into two sectors by using a multi-beam antenna radiating a pair of 33° beams. These two beams are radiated from a single BSA and are pointed +/- 30° from boresite so the twin beam antenna can simply take the place of the existing BSA without any repositioning or re-pointing.

## Devices could hold back use of MMW for 5G access

Bluwan warns that using millimeter wave frequencies in 5G access networks will drain device batteries, but says 'the right people' are working on the problem. There has been much talk of 5G access technologies at Mobile World Congress this week, including the use of millimeter wave (MMW) in high spectrum bands, but one company warns that there are still major challenges to be overcome, particularly when it comes to devices. "We have to be very cautious," Shayan Sanyal, chief marketing officer at wireless transmission technology company Bluwan, told Total Telecom on Wednesday. Using 6 GHz-plus MMW spectrum for transmission works; many challenges have been overcome and the technology is fairly advanced, Sanyal explained. But there is still a lot of work to do on devices. The need for advanced antenna processing inside the device requires a lot of power. "[That will] wipe your battery dry," Sanyal said. "The science is here," but it remains to be seen if it is cost-effective and deployable, he said, particularly given that most industry players are predicting that 5G will come to market as early as 2020. "Five years is a very aggressive timeframe," Sanyal said. That said, "the right people" are working on the problem, he added, naming Samsung as a prime example. "They understand the ecosystem," he said. And in the meantime, MMW is ready for use as a backhaul technology in dense network deployments. In Barcelona Bluwan unveiled the results of a study it commissioned from Real Wireless that shows that using high spectrum bands for backhaul will become increasingly important as the number of carrier WiFi hotspots grows. According to Real Wireless, there will be 31.1

million carrier-grade WiFi hotspots, representing 81% of all access points available to operators. Point-to-multipoint MMW backhaul will be one way to carry the traffic generated by those access points.

## Omantel first operator to launch the trial testing of Wi-Fi roaming

Omantel has successfully participated – as the first Omani operator – in the trial testing of Wi-Fi next generation hotspot (NGH) and PasspointTM/ Hotspot 2.0 technology at the GSMA Mobile World Congress 2015 (MWC) in Barcelona, Spain from March 2-5. The new technology will allow Omantel customers using IOS and selected Android devices to roam onto Wi-Fi networks using secure credentials and benefit from a secure Wi-Fi connection in the future. Commenting on this participation, Mohammed Yahya al Salmi, senior manager corporate communications at Omantel said, "Omantel is keen on participating annually at MWC which focuses on IT&C issues especially as it provides an ideal opportunity to meet with the major mobile operators and technology supplier to discuss with them the best and most advanced solutions that develop the experience of our customers." He added, "Omantel joined hands with more than 30 international operators, the GSMA and the Wireless Broadband Alliance (WBA) to offer our customers a secure and safe roaming utilizing the next generation of Wi-Fi with Passpoint TM/Hotspot 2.0 technology. "Omantel is the first operator in the sultanate and one of few in the region to take part in this trial. This confirms Omantel's commitment to lead innovatively, ensure our customers' privacy while seamlessly keeping them connected on the run." Omantel's delegation is taking part in the MWC 2015 and is accompanied by a media delegation that includes Abdullah al Bahrani and Dr Ali al Shidhani, the founding partner for Oman Technical Voice Initiative. The team contributed to transmitting the launch of the new Galaxy S6 mobile device from Samsung and the HTC M9 mobile device. Commenting on the visit, Bahrani said that the MWC in Barcelona is the biggest event in this field. Major IT&C player are always present in this gathering to display the latest developments they have. The congress provides an ideal opportunity to meet with experts in IT&C field.





## EU's Oettinger sets out 5G vision

EU digital economy commissioner Günther Oettinger officially presented the 5G public-private partnership's (PPP's) vision for 5G in a bid to ensure Europe has its say on global standards for the next-generation of



mobile technology. 5G "represents a bold opportunity to create a more competitive industry, growth, and jobs for our citizens," he said during a press conference at Mobile World Congress that included representatives from major carriers and vendors. Specifically, the 5G PPP's vision is of a network that combines optical, cellular and even satellite connectivity. It will also use software-defined networking (SDN), network functions virtualization (NFV), mobile edge computing (MEC) and fog computing (FC) technologies. In terms of spectrum, it will require hundreds of MHz to provide sufficient capacity. Higher frequency bands of 6 GHz and above should also be considered. 5G must also be flexible, and perform well even in challenging environments such as heavily-contended, as well as sparsely-populated, areas, and alongside major transport links. The EU said the first 5G networks should go into operation in the 2020-2025 period. 5G "paves the way for the digitization of the economy at large. 5G will be the infrastructure supporting multiple vertical business segments," said Oettinger, citing the automotive and healthcare sectors, as well as the Internet of Things (IoT). "The 5G vision opens a clear path to rejuvenate our telecom industry," he continued, adding that the 5G PPP can rely on the European Commission's "undivided support...to consolidate European leadership on this critical infrastructure."

## STC to adopt Ericsson's Radio Dot System

Saudi Telecom Company (STC) and equipment vendor Ericsson have teamed up to deploy Ericsson's state-of-the-art indoor Radio Dot System solution, which fully integrates with the outdoor W-CDMA and Long Term Evolution (LTE) networks. It provides seamless coverage for STC's consumer and enterprise customers in a wide variety of in-building deployment scenarios, ensuring the delivery of consistently high performance voice and data services. The deployment will also support scalable capacity for a range of commercial buildings, including the under-served, high-growth, medium-to-large buildings and venues category. Abdullah Alzame, network vice president at STC, said: 'This partnership will help us in providing our business customers with the highest standards of telecommunications services ... In practice, it will ensure that they have access to fast and reliable indoor mobile connectivity and enjoy the best possible network experience.'

## Ericsson Unveils Generational Shift in How Mobile Networks are Built

In big cities like New York, the air space above buildings is valuable real estate think the Manhattan skyline. Where there is no room to build out, urban planners build upward. Ericsson is opening up the same opportunity to operators struggling with site acquisition challenges in densely populated areas, allowing them to utilize wall space in existing sites and safely add 5 times the capacity to towers. Ericsson Radio System's modular architecture flexibly expands to changing demands on the road to 5G with multi-standard, multi-band and multi-layer technology. It all but eliminates site acquisition issues, delivering three times the capacity density with 50 percent improvement in energy efficiency. The system will give network operators the infrastructure they need to support growing mobile data needs, which are expected to reach 25 Exabytes per month by 2020, when 5G is expected to be commercialized. The new portfolio reduces total cost of ownership (TCO) by 20%. Hideyuki Tsukuda, Senior

Vice President Technology, Softbank Mobile, says: "As mobile broadband demand continues to grow, we are addressing the connectivity and speed requirements of our consumer and corporate customers by investing in the performance of our mobile network. Ericsson's new modular, compact and energy-efficient radio system enables us to target our network investments precisely where and when they are needed. This helps us to quickly address increased demand and ensure continued customer satisfaction, while optimizing our available spectrum resources." With the new system, operators will be able to tailor and evolve each mobile network site to meet their local requirements today and in the future. Ericsson Radio System improves operator responsiveness and reduces capital and operational expenditure. Ken Rehbehn, Principal Analyst at 451 Research says: "The Ericsson Radio System represents a generational shift for key elements of the company's radio access portfolio. By elevating its vision from a base station orientation towards a broader systems view, Ericsson sets the stage for evolutionary network change delivering operators needed flexibility and agility. Ericsson's move is important to operators because it promises a strong foundation for rapid technology innovation required to cost effectively handle growing traffic requirements, changing regulatory environments and challenging commercial realities as LTE networks become 5G networks." Ericsson Radio System delivers the industry's most energy efficient and compact radio solution, maintaining performance leadership at half the size and weight. The flexibility inherent in the architecture is made possible by targeted software deployment, which enables fast and efficient rollout of new capabilities. Arun Bansal, Senior Vice President and Head of Business Unit Radio, Ericsson, says: "We never compromise on radio network performance. Our experienced R&D team slashed the size and weight in half across the product line only after we secured performance. Ericsson Radio System's multi-standard, multi-band, multi-layer architecture with integrated backhaul provides an ideal platform for operators to support their business today and on the road to 2020, laying the foundation for 5G."



## Joining MENA's SME Digirati

Companies that commit to digital transformation across all aspects of the business simply do better. Capgemini Consulting's now famous analysis of 184 publicly-traded global companies found this to be true in terms of revenue generation efficiency, profitability and market valuation.

This is also true for smaller businesses. A widely-cited survey of 4,000 small and medium-sized enterprises (SMEs) in various industries around the world showed that digital transformation leaders created jobs almost twice as fast as other small businesses.

While glistening gateway cities like Doha, Dubai, and Riyadh are set to spend big on ICT infrastructure and have doubled down on public programs supporting entrepreneurship and SMEs, the burden to help deliver the envisaged economic future has now shifted to the SMEs themselves. Those companies that have both a strong vision to transform digitally and a long-term commitment to managing that change across the business, will win. Capgemini dubs these companies the Digirati.

### Mind the Gap

SMEs across MENA have more to gain than anyone else by joining the Digirati. But there is a glaring gap between the way consumers in MENA use digital technology and the way small companies do. Mind-blowing smartphone penetration, a huge appetite for data, and multiple SIM ownership keep individuals in the Middle East – particularly the Gulf – more connected than most.

For SMEs however, the picture looks very different. A recent report by Deloitte shed light on ICT adoption by SMEs in the region. In Qatar, as one example, over 55 percent of SMEs have no presence on social media platforms like Facebook or Instagram, while 83 percent of Qatari SMEs spent less than 10 percent of their budget on ICT services.

The costs of continuing on this course are high but so too are the opportunities for the digitally-transformed SME in the Middle East. To win the long game – capturing efficiencies, new customers, insights and revenue streams – SMEs in MENA's Digirati must think well beyond



**Simone Eliantonio**  
Head of Strategic Projects and  
Innovation  
Vodafone Qatar

websites, cloud and e-commerce - the traditional prescription for digital transformation. They must rethink and redefine digitisation as more enabler than communications channel; as both an opportunity and a threat.

## Making it Happen

To implement a true digital transformation framework, entrepreneurs and managers must take a fresh inward at three key pillars of their business: Customer Experience; Business Operations; and Business Model.

- With respect to Customer Experience, digital solutions can support any business in enhancing its reach – instead of relying only on word-of-mouth publicity or more expensive and less interactive forms

more effective in their everyday tasks and to be ready to easily expand to new locations or new international markets when needed.

- Digital solutions can enable innovative new Business Models that would not be possible otherwise. This is by far the most complicated opportunity to seize, but it can be the biggest one of all. Google, Facebook, WhatsApp and Amazon – for example - were not possible before the digital era.

## The Role of Telcos

Telecommunications providers have a central role to play in supporting SMEs on this journey. Just as the rise of instant messaging is ushering in an era of innovation, exploration and new revenue

Shared Plans for SMEs and Business Red – a best-in-class global service customized for the local market – but there is a lot of work to be done as soon we will look at new areas to add value for SMEs aspiring to join the Digirati.



of advertisement – by creating a wider and more engaged customer base for its products and services; Digital Solutions can also enable each company to have a better insight of what their customers like and don't like, allowing them to invest their resources in a more focused way.

- Digitally-enabled Operations – rather than paper based ones – can support even small companies to be

streams in our own industry, SMEs must be ready for what's next.

Digitisation is a top priority for us at Vodafone in Qatar and across the world and we are aggressively looking at new ways to help SMEs also make it a priority. As a telecom provider, we need more digitally enhanced companies in our ecosystem as digital awareness creates further demand for telecom services. We have already done this through crafting

*Simone Eliantonio is Head of Strategic Projects and Innovation at Vodafone Qatar. Vodafone has a 30 year pedigree connecting businesses and technology and is now bringing its unrivalled global capabilities to this region.*





It's a simple yet very innovative application for FCB fans, it's not about matches' details or expectations, not at all. The whole idea behind the application is to achieve an outstanding level of brand engagement with the club and the players. You just open the app, choose the player you like and he will appear on the screen, then you take a photo with him and share it with your friends.

You can maximize or minimize the player to fit with the person in the photo, and you can edit the photo brightness to match with the background, capture the photo and you can edit it with the rich effects and editing tools in the application, then comes the last step where you share the photo with your friends.

Is this enough? I mean would this really keep users coming back to the application?

Of course not, that's why the application is social oriented, in other words, you can have your friends within the app, and other users can follow you, you even can earn points by using the application and you can redeem these points to unlock premium photos and to purchase products from FCB Official Store within the application.

It's a unique experience, it's an app that's acting like a social hub for all Barca fans where they can interact by comments, likes and shares and they are even allowed to chat.

You must be wondering now about the idea validation, and if it's really going to work!

I don't blame you because this is the most important step for any application to boom. Tawasol in cooperation with FCB have made the needed research and studied online and mobile behavior for Barca fans and became sure it's going to be a big hit. And for you let me just show you these two links, one of them is a video by Al Arabiya TV Channel taken during the Mobile World Congress 2015 at FCB STUDIO booth <https://www.youtube.com/watch?v=7x7MvHVRqEU> , and the other one is showing the crowds at our booth waiting in queue just to get their photos with their favorite players using the demonstration version of the app <http://blog.tawasol.com/2015/03/selected-photos-from-mwc15-mobile-world.html>.



## The revolution of Sports mobile apps

Sports make people happy either if they practice it or just watch it, and with the technology innovation and smart phone increasing penetration we've been seeing an interesting combination between sports and technology, like Nike and Apple as an example.

Applications for soccer; matches schedule, results, and details. For Basketball; expect who wins, which player will score the most, and also more details. Same for all other kinds of sports, all these applications keep the audience updated and engaged with what's going on the ground.

But now, we started seeing more innovative and user engaging apps, apps aim to make the users closer to their favorite teams, players, and sports. The ultimate goal for all these apps is to create and increase the brand love of a specific team, player, or sport.

Take for example FCB STUDIO mobile application which has been developed by Tawasol – Leading digital strategy and mobile app development firm based in Dubai - for FC Barcelona.



**Osama Moustafa**  
CEO  
Tawasol IT



## Reducing e-Friction for Business and Economic Success

Increased access to a global, expanding, and interoperable Internet is good for business and national economies. To be successful, companies and countries are counting on an Internet that remains borderless and interoperable. Recent reports by The Boston Consultancy Group, commissioned by ICANN, introduce the concept of e-friction and highlight the benefits of reducing or eliminating barriers to access to the global Internet.

The theme of the reports resonates with both business leaders and policy makers more than ever before.

While much of the current reporting on global Internet governance warns of "doom and gloom" scenarios of an Internet fragmented or by a patchwork or national regulatory regimes, the BCG reports emphasize the economic upsides of fully embracing the ever expanding, globally interoperable Internet. What's more, they point the way for governments and business, working together, to identify concrete steps to improve their performance.

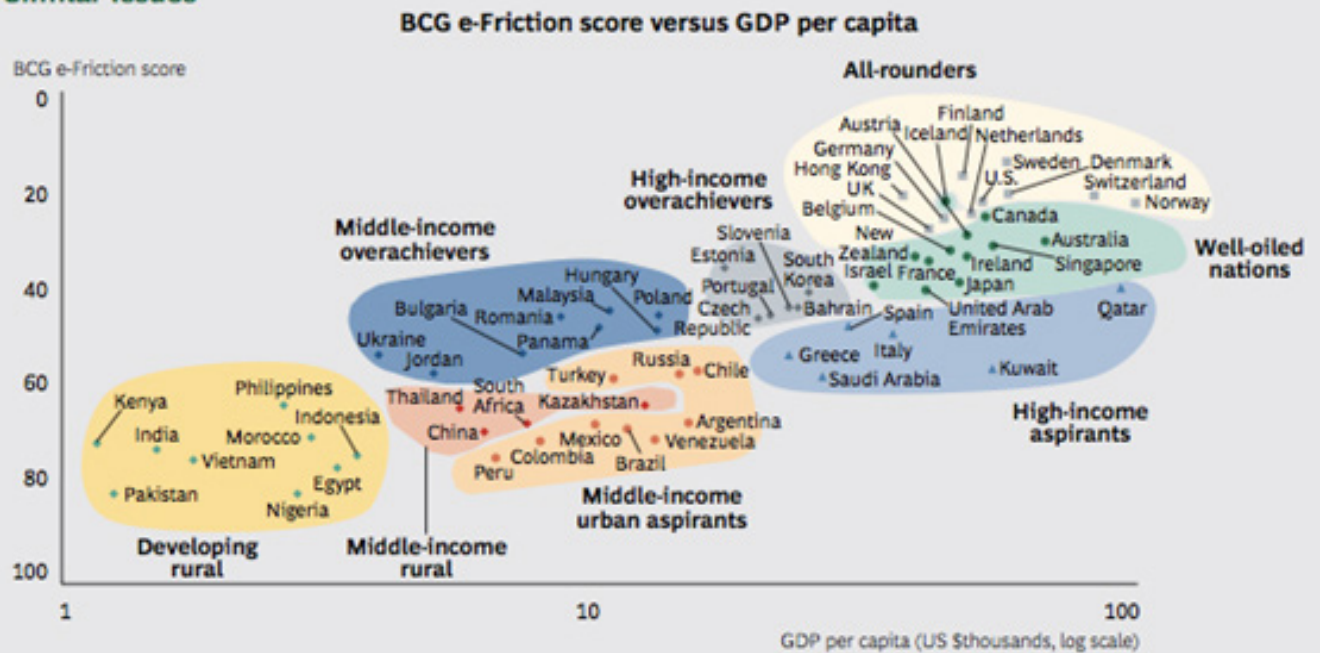
Greasing the Wheels of the Internet Economy, published last year, created a country index measuring the performance of 65 countries that include more than 80 percent of the world's population and more than 90 percent of the world's economic activity. And it opened the door to their update "Which Wheels to Grease? Reducing e-Friction in the Internet Economy," launched in early March at the Mobile World Congress in Barcelona, providing an insightful perspective that allows countries with similar geographic, linguistic or demographic challenges to learn from each other.

The country index itself compiles 55 measures of potential sources of friction in four categories: infrastructure, business, individual and information. The 2015 update examines the data in light of countries' wealth, population density, urban-rural population mix, literacy, and English language skills. Analyzing countries by their e-friction scores and their per capita GDPs results in eight country clusters, split into three groups by income levels. Nations looking to reduce



**Christopher Mondini**  
VP Stakeholder Engagement  
Global Business and North America,  
ICANN

## EXHIBIT 2 | An Analysis of Per Capita GDP and e-Friction Reveals Eight Country Clusters with Similar Issues



Source: World Bank GDP per capita (current US\$) for 2012; Bangladesh is omitted on this chart, as its GDP per capita is less than \$1,000.

Table from the BCG Report: Which Wheels to Grease? Reducing e-Friction in the Digital Economy

e-friction can start by prioritizing the relative significance of each source of friction for their country, and then develop a strategy for each. Countries in the same cluster face common challenges and will likely benefit, in many instances, from pursuing similar solutions.

Developing rural nations face multiple issues of basic infrastructure. A number of emerging markets are experimenting with several funding and operating models. The optimal technology depends on local conditions, with a combination of mobile and fixed wireless generally the most cost effective for rural areas and satellite typically the best bet for truly remote areas.

Middle-income nations may benefit substantially from efforts to demonstrate to their populations the value of the Internet and bring more people online. There are good models to follow in four key areas: furthering local content development, building digital literacy, simplifying access and use, and bringing down cost.

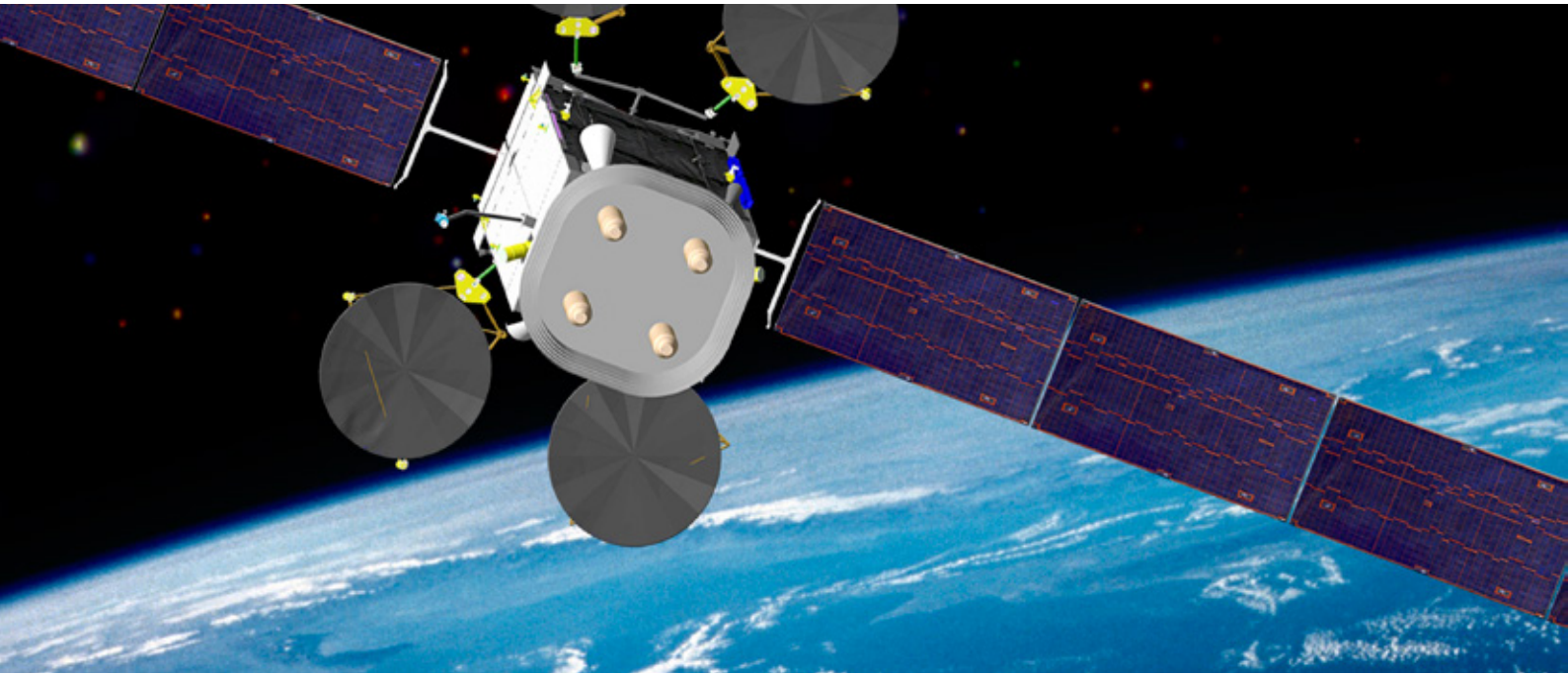
Even countries with relatively low e-friction face thorny digital issues, such as privacy and data security, that clumsily handled or left unresolved, can throw sand in the gears. Some have more sources of friction to address, such as those related to outdated regulation, excessive bureaucracy, and impediments to investment; they need to focus their interventions with care.

ICANN and the Boston Consulting Group have made this report an integral part of their engagement with Internet stakeholders in multiple regions, gathering business and government leaders in capital cities as diverse as Manila, Mexico City and Kigali. Upcoming events in Beirut and Dubai will address findings that relate specifically to the Middle East region. The e-friction report has provided a sustained level of interest since its introduction. The BCG findings provide government officials with information on how to gain up to 2.5 percentage points of GDP growth, and show small and medium business owners how they can realize an additional 7% in revenue. Hence the strong interest, in country after country, for gathering

diverse stakeholders to develop national road maps for maximizing economic gains from their connection to the global Internet.

For copies of the 2014 BCG report, Greasing the Wheels of the Internet Economy, or the recent update, kindly contact [businessengagement@icann.org](mailto:businessengagement@icann.org).





## ▼ SATELLITE NEWS

### SATELLITE UPDATES

#### TS2 Satellite Brings KA-SAT Services To Iraq, Syria + Armenia Via HYLAS 2

TS2 Satellite recently launched new KA-SAT satellite services using the HYLAS 2 spacecraft, providing high-speed data services to Iraq, Syria and Armenia. The HYLAS 2 satellite carries 24 active Ka-band user beams and six gateway beams. The Ka-band spot beams are providing two-way communications services to facilitate high-speed delivery of data to end-user applications such as corporate networking, broadband Internet access, business continuity services and video distribution. The new Ka-band service is based on the field-tested and proven technology provided by iDirect. Ka-band service requires smaller antennas, reducing the equipment and transportation costs and making for an easier installation. Marcin Frackiewicz, CEO and founder at TS2 Satellite, said, "Our new service to Iraq, Syria and Armenia allows for downlink speeds up to 20Mbps, five times the previous maximum, using a smaller antenna. Higher performance is gained at a much lower cost, which allows up to four times higher connection speed at the same cost, if compared to previous Ku-band service, without compromising connection reliability and stability."

#### ITU Sends Vanuatu Emergency Satcom Resources

The International Telecommunications Union (ITU) is supplying emergency satellite communications equipment to the archipelago of Vanuatu, which on March 13 endured a category 5 tropical storm known as Cyclone Pam. The storm caused winds estimated at 250 Km/h, along with peak gusts of roughly 320 Km/h, which severely damaged infrastructure across the country, including the capital city of Port Vila on the island of Efate. ITU issued 40 satellite phones and 10 Broadband Global Area Network (BGAN) terminals, along with 35 solar panels to support relief coordination efforts. There are currently more than 2,000 people taking refuge in more than 25 evacuation centers on the islands of Efate, Torba and Penama. "The frequency and intensity of disasters is increasing worldwide with a disproportionate impact on developing countries," said ITU Secretary General Houlin Zhao. "We are working with our partners to increase the capacity of member states to integrate [Information and Communication Technologies] ICTs in their disaster risk-reduction policies. ITU is also encouraging governments, especially those in developing countries, to invest in telecommunication infrastructure that is resilient to disasters."



## Middle East Petroleum Company Orders Hughes Jupiter System

Hughes Network Systems received an order for its Jupiter system to serve as the foundation network for a large oil wellhead-monitoring project. The customer, based in the Middle East, will use a network of two Jupiter gateways and more than 600 ruggedized Supervisory Control and Data Acquisition (SCADA) satellite terminals. Hughes has designed the terminals specifically for this application, which stretches across hundreds of miles of desert. The Jupiter system features a high density and robust gateway architecture with lights-out operation, an enhanced IPoS air interface, and high-throughput terminals. It is based on a System on a Chip (SoC) along with an advanced Very-Large-Scale Integration (VLSI) processor that uses a multi-core architecture capable of throughputs reaching 100 Mbps on every terminal within the Jupiter family.

## Encompass Digital Media Acquires Full Transponder On Intelsat's G-19 Satellite

Encompass Digital Media has added a broadcast-focused mux to its North American satellite platforms, Intelsat's G-19. By occupying a full transponder, Encompass provides its clients with a cost-effective, premium location for their digital sub-channels (D2). Encompass has worked closely with network distributors to develop technology that fits the unique requirements of the D2 market including advanced secondary event triggers and reduced throughput to enhance the primary distribution of off-air stations. Currently, four uniquely distinct D2 programmers have launched on Encompass' G-19 broadcast-focused transponder and another channel will be added in April. "We have seen a steady increase in our digital sub-channels business over the last year," states Vince Matherne, Chief Product Officer for Encompass. "G-19 provides D2 clients a home on a broadcast-friendly satellite with the ability to launch on a channel-by-channel basis on a fully saturated transponder. Each new channel launched is then instantly available to broadcast stations typically without additional antenna resources being deployed."

## Arianespace Inks Agreement to Launch Peru's First Satellite

Arianespace has signed a launch service contract with Airbus Defense & Space to launch the PeruSat 1 satellite for the government of Peru. Built by Airbus Defence & Space in Toulouse, France, PeruSat 1 is a high-resolution Earth Observation (EO) satellite. The first satellite of this type to be operated by Peru, it will be placed in Sun-synchronous orbit using a Vega launch vehicle. The satellite will weigh about 450 kg at launch, which is scheduled for 2016 from the Guiana Space Center in French Guiana.

## Gilat Launches Ka-Band Service in Latin America

Gilat Satellite Networks' announced that its SkyEdge II-c High-Throughput Satellite (HTS) Multi-Spot Beam went live at JCP, the Brazilian telecommunications subsidiary of Florida-based Brastrading. With its new network, JCP is making Ka-band broadband services available to consumers, enterprise and the maritime and aviation mobility markets. "Our VSAT platform is live, serving our initial customers over our Ka-band service package on the Eutelsat E3b satellite and is operating perfectly," announced Wagner Moura, CEO of JCP and president of Brastrading. "We believe there is a large opportunity for Ka band in Latin America to extend Wi-Fi, LTE over IP, and for content distribution."

## ETL Systems to Upgrade Intelsat Teleports

Intelsat has awarded satellite communications RF signal distribution equipment specialist ETL Systems a contract to upgrade its teleport facilities. ETL Systems' Enigma routers enable rapid switching time for continuous cycling through various channels to prevent missing an outage. Additionally, the Enigma matrix supports alarms and thresholds that customers can set to notify them of any signal weakening. ETL System's product will use specially designed software for Intelsat's teleport operators to view up to 32 simultaneous open sessions for carrier monitoring. This 32 x 32 matrix can be modularly expanded up to 256 x 256 and features dual redundant power supplies. All of ETL System's RF components are fully hot-swappable.

## NASA Selects Orbital ATK for Future JPSS Satellites

Orbital ATK received a contract valued at up to \$470 million to build the Joint Polar Satellite Systems 2 (JPSS 2) weather satellite, with options for two more spacecraft. The JPSS 2 contract, worth \$253 million, is a firm order, while the JPSS 3 and 4, valued at \$217 million, will be built based on a later decision from NASA. Orbital ATK will manufacture the spacecraft on the LEOStar 3 medium-class low-altitude-orbit platform. Other NASA spacecraft, such as the Landsat 8 and ICESat 2 Earth science satellites are based on the same satellite bus. The company has built a total of 12 spacecraft on the LEOStar 3 bus to date. JPSS 2 is scheduled for delivery in 2020. The next two, if exercised, are planned for 2024 and 2028 respectively. JPSS satellites have a design life of seven years and are part of NASA's partnership with NOAA for space-based weather observations.

## Somali Telcos Tap O3b Networks for HTS Services

O3b Networks has swept up a number of customers in Africa this month, most notably in Somalia where the operator's Medium Earth Orbit (MEO)-based satellite services have found popularity. Hormuud Telecommunication, the largest operator in Somalia by customer base and coverage, entered a multi-year contract to provide O3b-based satellite connectivity in the capital city of Mogadishu, along with central and southern regions of Somalia. Golis Telecom, the largest provider of telecommunications services in Somalia's autonomous Puntland region, and Telesom, a top Mobile Network Operator in the separatist region Somaliland are also committed multi-year customers. Emerging markets are a top focus of O3b, which is well known for its mission of connecting the "Other 3 Billion." Asia, Africa, Latin America, Australia and the Middle East are emphasized regions. The company completed its initial constellation of eight MEO satellites in July 2014, and grew to 12 with the December 2014 launch of four more satellite aboard an Arianespace Soyuz rocket. In a previous interview, O3b CEO Steve Collar said the fleet could grow beyond 100 spacecraft as time goes on. Each customer has different plans on how to use O3b's Ka-band



High Throughput Satellite (HTS) capacity, which delivers round trip latency of less than 150 milliseconds. Hormuud Telecomm intends to deploy O3bTrunk for trunking in the Somali capital, and O3bCell in central and southern parts of the country for cellular backhaul. The company is now starting to offer public and private cloud services, and covers every major population center in the nation's central and southern regions. O3b's satellite coverage will reach most major towns in these regions. "Many applications are only possible with low latency and satellite is the preferred option of Hormuud Telecom when it comes to delivering its Fixed Broad Band (FBB), Mobile Broad Band (MBB) and cloud applications services to its customers in all the major towns of Somalia. Only O3b can deliver these capabilities over satellite, and that's what customers in Somalia increasingly demand," Ahmed M. Yuusuf, chairman and CEO of Hormuud Telecom said in a statement. Golis Telecom also intends to use O3bTrunk, and O3bCell products. The company has telecom centers in every major city and town within Puntland, along with extensive network infrastructure. In addition to telecom services such as broadband and 2G and 3G voice and data, Golis Telecom also provides electric power in Bosasso where it is headquartered. Leveraging O3b connectivity, the operator plans to cover most of the big towns in Puntland by satellite. The Somali Mobile Network Operator (MNO) Telesom likewise intends to deploy O3b trunking and cellular backhaul solutions. The telco opted for satellite as a means to reach a greater number of population centers. Telesom is also upping the level of data use, having introduced 3G service in July 2011. O3b Networks will connect each of these customers using 700km wide satellite beams. The telcos will have access to throughputs as high as 1.6 Gbps.

## Quicklink Skype Solution Approved on Inmarsat Network

Inmarsat has certified and approved Quicklink Video Distribution Services' solution for converting Skype calls into a professional quality video/audio signal, Quicklink TX. Through Inmarsat's Certified Applications Program (CAP), the solution is now permitted to run over the company's Broadband Global Area Network (BGAN). Quicklink TX is a fully integrated hardware and software solution enabling media experts to manage Skype for broadcast purposes.

The certification also extends the solution's reach to eHealth, eLearning, energy and other enterprise sectors. "For media specifically, we want to develop solutions that support traditional newsgathering applications, while also acting as a catalyst for new ideas," said Martin Turner, director of media, enterprise market strategy and development at Inmarsat.

## RigNet Communications Contract with World's Deepest Oil Production Facility

RigNet has signed a two-year contract with an ultra-deep water oil and gas Floating Production Storage and Offloading (FPSO) vessel in the Gulf of Mexico for the delivery of managed network communications. The company is providing a fully managed end-to-end IP network solution for the facility, which passes through 2,900 meters (9,500 feet) of water, making it the deepest production facility in the world. Through the contract, RigNet is providing Voice Over IP (VoIP), broadband and enterprise data with 24/7 networking monitoring and support from its Network Operations Center (NOC), along with local field



technician support if needed for the energy customer. The solution leverages VSAT technology for last-mile connectivity.

## Grupo Pegaso taps Hughes for rural satellite project

Mexico-based Grupo Pegaso has selected US satellite broadband provider Hughes Network Systems to supply its JUPITER System to help bridge the 'digital divide' for communities in rural Mexico. Pegaso Banda Ancha, a Grupo Pegaso company, will deliver

services over the Bicentenario satellite owned by Mexico's Secretariat of Communications and Transportation (SCT), operating a Hughes JUPITER Gateway and more than 5,000 remote terminals. Pegaso Banda Ancha, which was created in 1999, offers its services not only in Mexico, but also in the US, Central America and the Caribbean, using HISPASAT satellites and MEXSAT's Bicentenario satellite. The company claims to be 'one of the leading satellite connectivity service providers in Mexico' and claims a 35% share of the satellite broadband sector.

## SAT Corporation Launches SigX Protect to Automatically Cancel Satellite RF Interference in Real Time

Kratos Defense & Security Solutions announced that its SAT Corporation (SAT) subsidiary released SigX Protect, a patent-pending Radio Frequency (RF) signal protection product that can be configured to automatically cancel interference in real time with no human intervention. SigX Protect works by automatically detecting and characterizing interfering signals by phase, amplitude and frequency. It then creates a cancelling signal to remove the interference and preserve the integrity of the protected link. SigX Protect employs a technique called blind separation that requires equipment only on the receiving end of the communications path and allows SigX Protect to characterize and cancel an interfering signal with no prior knowledge of the source or location of the interference. SigX Protect is installed directly in the communications chain to reduce any potential delay or latency in the communications signal. It works with all existing and new satellites, incurs no added bandwidth costs and provides protection with no impact on operations.

## Omantel teams up with INMARSAT

Omantel announced its partnership with Inmarsat which owns and operates three global constellations of 12 satellites flying in geosynchronous orbit to provide Omantel corporate customers with high-quality communication solutions and added value services using satellites. Commenting on this partnership, Ali Bakhit Kashoob, senior manager, product development corporate





at Omantel said "This partnership comes as a response to our corporate customers' needs and provide them with alternative connectivity solutions. Oman is a blessed country with diversified topography which makes it challenging in some cases for companies operating in difficult terrains to communicate with their headquarters and clients located in different parts of the Sultanate or the entire world". "Our partnership with Inmarsat International- the leading provider of global mobile satellite communication services will enable us to offer advanced and reliable seamless voice, broadband data and IP communications solutions across the globe to our corporate customers operating in areas that are not covered by terrestrial networks. Inmarsat has stood at the forefront of the mobile satellite services industry for more than 30 years. The company has a unique and unrivalled experience in designing and operating satellite communications networks," Kashoob furthered. Omantel Business Unit provides advanced communication solutions that meet the needs of the different public and private customers.

## SES, Airbus Defense and Space to Deliver SATCOM Services to Enterprise Markets

SES and Airbus Defense and Space announced that they have signed a multi-year multi-transponder agreement to deliver managed satcom services to corporate customers in Africa and globally. Airbus Defense and Space will couple the latest satellite technology from



SES and its satcom developments as a platform for new Terralink services planned to launch later in 2015. As part of the long-term partnership agreement, Airbus Defence and Space will use additional capacity on the SES 5 satellite, and the SES teleport in Luxembourg combined with its own teleport in Aussaguel, France, to secure full coverage and flexibility on its Very Small Aperture Terminal (VSAT)

services across the African continent. This agreement encompasses the possibility to expand Ku-band capacity on SES's Astra 2G, Astra 4A and NSS 12 satellites. "We are enabling greater collaboration through applications like video conferencing, improved welfare through personal communication and better operational efficiency through, for instance, machine to machine communication and inter-site corporate networks," said Evert Dudok, head of communications, intelligence and security at Airbus Defense and Space.

## TeleCommunication Systems Launches Antenna System for Tracking LEO and MEO Satellites

TeleCommunication Systems (TCS) announced the availability of its new deployable X/Y Tracking Antenna System. The deployable systems are specifically designed for Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) satellites in support of Earth observation, remote sensing, and telemetry, tracking and control for tactical applications. A higher demand for more ground station terminals and antenna systems capable of tracking these satellites is expected. Future Department of Defense (DOD) reconnaissance applications will include the use of LEO small satellite technology for quick, cost-effective earth imaging. TCS' new X/Y Tracking Antenna System can be controlled or monitored from anywhere in the world.

## DataPath Announces New Cyber Security Solutions for Communications Networks in Harsh Environments

DataPath announced the launch of new cyber security solutions. The offerings include a variety of information assurance service packages designed to protect the communications networks of operations in remote and harsh environments. Last year, the number of reported cyber security incidents rose 48 percent to 42.8 million, or approximately 117,000 attacks per day, according to a report from PwC. The report also concludes that the average financial loss of these

attacks was \$2.7 million per incident — an increase of 34 percent over 2013. "The figures on cyber threats are staggering. The question that companies must ask today is not if a cyber attack will occur, but when," said Peggy Rowe, VP of software and cyber Solutions for DataPath. DataPath's cyber security solutions assess a communications network's infrastructure, identify vulnerabilities, and create a customized security plan. The solutions are available in three service levels, known as Essential, Assurance and Vigilance. The services range from basic assessments, to supporting the customer's existing IT staff to support and incident response. Additional services include network certification and accreditation, compliance assurance, and post incident investigation.

## Intelsat and the Space Connection Partner to Expand North American Business Using Video Neighborhood

Intelsat and The Space Connection, a wholly owned subsidiary of Telesat Canada, announced a new, multi-year capacity agreement. Under the deal, The Space Connection expanded its capacity commitment on Intelsat's Galaxy 17 satellite located at 91 degrees west and renewed services on Intelsat's Galaxy 3C satellite located at 95 degrees west. Galaxy 17 is a sports neighborhood within Intelsat's Galaxy fleet, with marquee sports programming transmitted to cable head-ends throughout North America. By renewing and expanding its agreement with Intelsat, The Space Connection will continue to provide existing customers with regional and national sports content, as well as leverage the additional capacity to expand its distribution reach in a cable distribution neighborhood that has a 98 percent penetration of cable head-ends. The agreement also secures continuity of service for The Space Connection's current customers at Galaxy 3C.

## France Awards Three Military Satellite Orders to Airbus, Thales

France's Direction Générale de L'Armement (DGA) has selected Thales and Airbus Defense and Space to work together as co-prime contractors for a trio of military satellites. The



companies were awarded to build the Capacité de Renseignement Electromagnétique Spatiale (CERES) or Space Signal Intelligence (SIGINT) capacity, which will use three satellites in close proximity to each other for the detection and location of ground



radio-telecommunications and radar signals. The DGA tasked Airbus Defense and Space with building the space segment for each satellite, and Thales with the payloads. The French space agency CNES is providing a ground control segment and the user ground segment, which Thales will use for satellite programming and data processing.

## Call for integration of cellular and satellite infrastructures

Abu Dhabi-based satellite broadcasting company YahLive sees need for integration of cellular and satellite infrastructures to offload heavy video traffic from terrestrial (fiber) networks and reap benefits. Sami Boustany, CEO of YahLive, told Gulf News on the last day of Cabsat at the Dubai World Trade Centre (DWTC), that satellite always has a key role to play in the architecture of future networks and the acceleration of digitization and "we are starting to see it". The telecom industry and the satellite industry have become more "intertwined". He said that there are still some regional telco operators who find it difficult to cover the entire territory, especially in remote areas. "Linear channels [IPTV] are putting a lot of pressure on the terrestrial networks. The industry is now realizing that they need to look at hybrid systems between satellite and OTT [over-the-top]. So, anything on-demand will have to be reserved for terrestrial networks and anything that has to do with linear TV will have to be satellite," he said. Yahlive is a joint venture between satellite operator SES and Yahsat, parent company of YahLive and part of Mubadala, the investment arm of the Abu Dhabi Government. "Telcos realize that they need just to lease a space on the satellite rather than invest a lot on base stations.

Many telcos globally are investing in space and in ground for future needs," he said. However, he said that UAE will never become a satellite DTH (direct to home) market as the terrestrial infrastructure is very good. With more than 25 million viewers watching channels beamed by YahLive East beam, which covers the Middle East and Levant, the company has grown 140 per cent in number of channels in the last 18 months and grew 60 per cent last year. "We are targeting broadcasters that cater to specific communities and specific regions and we were able to do that very fast last year. We cover around 30 per cent of the globe and around 15 per cent of the total population," he said. YahLive has more than 100 channels on East beam. He said that satellite will continue to be the "preferred platform" for most broadcasters in the region as the IP-based infrastructure in most of our footprints is still not adequate amid increase in number of linear channels. "We will hit capacity very soon and have plans to double that within a year to increase capacity," he said. YahLive's current capacity is 23 transponders. The biggest challenge the company face is to convince broadcasters to move to more efficient transmissions. "Efficient transmission means for the same quality [standard definition or high definition], broadcasters need less bandwidth and pay for less capacity because they use more efficient compression technology," he said. He said the entire region is working on legacy systems. Around 90 per cent of all transmissions are still using MPEG2 format. The reason why broadcasters are not ready to do that, he said is because the consumers don't have HD set-top-boxes. If they do it now, then they [studios] need to invest in HD cameras and update their studios to become HD ready. "If broadcasters need to broadcast a channel in HD [MPEG4 format] they can do it for Mbps. If they use the old legacy transmission [MPEG2], then they need to use around 10 Mbps to get the same HD quality," he said. The company sees another 40 per cent growth this year as there is still room for growth. "We are very optimistic about the future and looking at the regions we cover, we are here to stay," he said.

## Gilat and Intelsat Join Forces to Expand Cell Service in Rural Regions

Gilat Satellite Networks and Intelsat have joined forces to provide Mobile

Network Operators (MNOs) with a 2G/3G cellular infrastructure solution with the aim to better serve rural regions. The companies expect the network to enter service in 2016. The partnership is looking to combine Gilat's CellEdge small-cell-over-satellite solution with Intelsat's global satellite coverage and IntelsatOne terrestrial infrastructure to allow MNOs to expand their services to better connect rural populations. An initial example of the collaboration is RuralCom's thousand-mile-long Alaska Highway and British Columbia Coast cellular network in which Gilat's CellEdge 3G network is leveraging Intelsat's global satellite fleet through its Intelsat Horizons 1 satellite and its IntelsatOne terrestrial network.

## SpeedCast teams with Thuraya to deliver mobile satellite products

Hong Kong-based global communications services provider SpeedCast International has inked a distributor agreement with mobile satellite operator Thuraya Telecommunications Company, providing SpeedCast with a range of satellite mobility solutions for its global customer base. Under the terms of the contract, Thuraya will provide SpeedCast access to its portfolio of products and services, which includes Thuraya SatSleeve, XT satellite phones, and land and maritime broadband terminals. In addition, the agreement allows SpeedCast to distribute Thuraya products and services throughout its reseller and end-user customer base. The expanded portfolio will offer SpeedCast's customers a broader range of solutions to meet their communication requirements, particularly in the maritime, energy and enterprise sectors.



# Beyond Connectivity

11<sup>th</sup> May 2015

Ritz Carlton, West Bay Lagoon, Doha, Qatar

## Meeting the digital agenda: "Maximizing Telcos' revenues through harmonized excellence"

### Topics of Discussion

- › Achieving the digital agenda – Key milestones across different verticals
- › The rise of spectrum needs – WRC15 preparations
- › Emerging Trends in satellite broadband
- › International mobile roaming regulations
- › Cooperation across content stakeholders





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