

# SAMENA TRENDS

EXCLUSIVELY TO SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

A SAMENA Telecommunications Council Newsletter

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## Network Sharing Strategies

*Exclusive Interview*

**Dr . Saad Dhafer Al Qahtani**  
Group CEO Strategic Operations  
Saudi Telecom Company

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# EDITORIAL



SAMENA is going to Doha. Doha is home to the upcoming FIFA World cup and many other new growth opportunities. The city, country, and region are literally taking the lead on many areas of interest and impact to society and the industry. Along with this representative growth from the SAMENA region, one of the key areas of growth in the region and an element that SAMENA is addressing is the core belief of the need for a sustainable Broadband Infrastructure and related ICT policy.

IT and telecommunications and the development of Broadband capabilities embrace all of us – be it individuals, corporate or government. It has proven positive contribution on growth, jobs and wealth creation. Internet utilization is a critical element of economic progress and accounts for significant portion of GDP.

The World Bank has opined that for every 10 percent increase in high speed Internet connections economic growth increases by 1.3 percent. It may be suggested that economic impact is even higher, for besides the direct contribution of ICT as a sector; there is indirect contribution as well through allied industries, job creation, increased worker productivity and creation of knowledge-based industries. Connectivity Scorecard 2011, a study commissioned by Nokia Siemens Networks, reiterates that investment in ICT infrastructure and its requisite applications and proliferation of ICT skills will help countries in boosting their socio economic growth.

ICT accessibility and affordability have been consistently increasing in developing countries raising the potential for using such services for reaching all strata of the society and enabling e-services for the masses. Regional operator's customers using the basic operators' services present prime captive opportunities for providing extensive catalogue of VAS and e-services.

The SAMENA region and especially its Middle Eastern countries represent one of the highest penetrations of the cellular subscribers and high GDP per capita but with varying levels of ICT development. High levels of mobile penetration signify high potential access to communication and thus fostering ICT access should be prioritized in countries with lower GDPs in order to help in providing economic opportunities for all.

The Internet has hence helped in creating value shifts between different sectors, by and large all sectors have benefitted from the web. Unleashing the true potential of the internet can be driven by public decision makers and governments who have the onus to capitalize on internet public spending as a springboard for innovation. Alongside the public decision makers business leaders have to take charge in optimizing benefits through change and innovation. As such, the telecom operators have invested billions toward infrastructure that supports the growth of knowledge and understanding.

The Internet driven models include future computing facility becoming accessible through Web browser alone rather than a specific operating system. In theory, this will make the browser a universal computing platform. The Internet ecosystem can thus be nurtured through efficient industry stakeholder dialogue to ensure growth and sustainability of ICT initiatives like cloud computing,

# EDITORIAL

business mobile data services and ensuring continual flow of ICT investments in education and healthcare. The development of a Knowledge based economy is becoming important not only in advanced communities but in emerging market countries as well. Developing countries are facing connectivity gaps though mobile telephony is showing strong growth trend. ICT adoption and overcoming barriers to its utilization would remain as central issue to realizing ICT's true economic potential in countries where ICT proliferation is still lagging behind.

The sustainability of the sustenance of the telecom infrastructure is highly important and with that, the ability to serve billions of people with high-speed Broadband services has become a derivative of this new very costly infrastructure. The uptake of Broadband today is growing exponentially presently and there are forecasters that say by the year 2015, the slope will be five times that or more than what it is today. The SAMENA Telecommunications Council and its member companies all take this requirement very seriously. The propagation of strong operative policy that permits all stakeholders to positively participate within this cornucopia of growth is of great impact to the success of the industry for years ahead.

Truly Yours,

**Thomas Wilson**

CEO & Managing Director

SAMENA Telecommunications Council



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## TOP REGIONAL & MEMBER NEWS

### **du Launched The Social BlackBerry Service**

du has become the first telecom service provider in the region to offer its customers a daily Social BlackBerry service. Social BlackBerry service from du offers access to a suite of social networking websites and various messaging platforms, starting from just AED30 (US\$ 8) a month. Customers can be subscribed to either an Elite Plan or Pay as you Go. For Elite Plan customers have to pay AED 30 (US\$ 8) for monthly subscription and for Pay as you Go customers can access the service at a rate of AED1.5 (US\$ 0.40) per day, with costs being charged to either 'more time' or 'more credit' balances. All subscriptions are recurrent, which means it will automatically be renewed unless the customer chooses to opt out. To subscribe to the BlackBerry Social Service, customers should SMS 'BB Social' to 1355.

### **ZTE Signs Optical Network Contract with FibreCo South Africa**

ZTE Corporation announced that it has signed a national optical backbone network contract with South African provider FibreCo. FibreCo was established by three leading South African telecom companies to upgrade optical networks across the country. The FibreCo national optical backbone network project aims to build a national open-access network, and will make affordable optical networks available to businesses, R&D centers and academic institutions. "This landmark investment will provide affordable, reliable and fast Internet access to ordinary South Africans," said FibreCo President. ZTE is the third ranking global provider in the optical network market and its second quarter 2011 revenues increased 45 per cent, compared to the same period a year earlier, reaching US\$500 million for the first time.

## Batelco to Launch IPTV Service for Residential Areas

Bahrain operator Batelco will launch its IPTV service in recently-developed residential areas. The service will offer a combination of free-to-air content and bouquets such as Orbit Showtime Network. A free video-on-demand library will also be available, offering approximately 200 movies and documentaries, with new additions made each month. Advanced features of the service include time-shifting, personal video recording, and an advanced interactive electronic programme guide. The service will be delivered in agreement with Saudi technology firm Selelevision, and will be expanded outside its two launch areas at a later stage.

## Qtel Reveals 900 BTS LTE Plan

Qatar Telecom (Qtel) has announced plans to deploy a network of 900 Long Term Evolution (LTE) base stations, following the completion of trials of the 4G technology in the 800MHz band, although it is still waiting to receive commercial frequencies and is in discussion with equipment suppliers for the rollout. The LTE coverage will initially focus on highly populated urban areas including Doha before expanding across the country, and Qtel aims to offer seamless Wi-Fi offloading for continuity of high speed data service coverage.

## du to Launch UAE's Second LTE Network By Year-End

du plans to launch its Long Term Evolution (LTE) network by the end of the year, bringing advanced high speed mobile broadband services to its wireless subscribers. Reuters quotes the company's senior vice president for network development, Hatem Bamatraf, as saying that Du expects to introduce the 4G network before the end of the year, probably during December. TeleGeography's CommsUpdate reported in May 2011 that Du had successfully completed its first pilot trial of LTE, stating that a commercial launch of the 4G technology would follow in the second half of 2011. Last month Du's sole rival Etisalat announced the commercial launch of its Long Term Evolution-Frequency Division Duplex (LTE-FDD) mobile broadband network, bringing maximum download speeds of up to 100Mbps to the country. The network, which is integrated with the operator's fibre-optic infrastructure, comprises over 700 base stations and is available in around 70% of the UAE's urban areas. Etisalat plans to increase the number of active LTE cell sites to around 1,000 by the end of the year.

## Nokia Siemens Networks Improves Network Capacity for E-Plus Group

Germany's E-Plus Group offers improved mobile broadband with higher bandwidth. The country-wide upgrade, based on flexible, cost-effective Ethernet technology, covers more than 60 sites. The system also incorporates a wavelength division multiplexing (WDM) backhaul platform from ADVA Optical Networking to improve E-Plus's ability to respond to sudden surges in mobile data traffic. With the upgraded backbone network, E-Plus is able to meet different bandwidth needs and respond to sudden traffic surges. Next-generation metro (NGM) platforms link the backbone to network elements such as access systems and routers. This ensures the increased performance is well-distributed throughout the network. In addition, Nokia Siemens Networks' network management solution enables E-Plus to manage the NGM end-to-end.

## Omantel and NBO Offer e-Top-Up and e-Bill Payment

Omantel and National Bank of Oman (NBO) has launched electronic top and bill payment services. All Omantel subscribers with NBO accounts can easily top up their balance or pay their phone bills using the convenience of SMS Banking anytime and anywhere. These services provide the customers to not only connect with their family and friends but also allow them to top up or pay bills for their friends or family members by simply sending "TO" to 90303. Customers can register for this feature by calling NBO call center on 800 77 0 77 to activate the service or by sending 'RT' to 90303. It is worth noting that NBO also plans to introduce these services on its Branches, ATMs and CCDMs for all NBO customers and non customers in the near future.

## Alcatel Completes Testing on China Mobile's LTE Network

Alcatel-Lucent has completed the first stage of testing on China Mobile's TD-LTE trial network in Shanghai. Alcatel-Lucent's completion of testing paves the way toward the realization of the goals of China Mobile and the Shanghai Government of establishing a 'Smart City Demonstration Zone'. The TD-LTE trial network in Shanghai is powered by Alcatel-Lucent's LTE service including base stations (eNodeBs), the Evolved Packet Core and Alcatel-Lucent's professional services expertise. Alcatel-Lucent conducted a number of advanced test cases on the network during this phase including core network performance testing, network security, wireless performance testing, terminal testing and multi-antenna testing.

## ZTE Selected for Softbank Mobile's New 4G Network

ZTE has been selected as the primary strategic partner for Softbank Mobile's new 4G network. ZTE will build a 4G network for the Japanese cellco initially covering Tokyo, Osaka and Fukuoka but aiming to cover more than 90% of the population. Huawei Technologies also announced its involvement in the same project. In a separate development, Softbank Mobile has picked Ericsson of Sweden to build its next generation packet core, as it readies itself for an anticipated increase in network traffic. Ericsson will implement its Evolved Packet Core (EPC) solution which will support Softbank's advanced mobile broadband services when the 4G network goes online. Softbank Mobile will also benefit from a simplified network infrastructure allowing it to reduce costs for operational maintenance and equipment.

## STC Extends Its (InVision) Service with Samsung Screen Free Offer

STC extended its offer of free subscription to the (main inVision) package for more three months up to December 2011. Extension of this offer comes as recognition and loyalty to customers, and reflection of the company's keenness to enable the largest number of its customers to benefit from their (SMART TV) purchase coupons from Samsung Company, by freely subscribing to inVision service. InVision service enable customer not to miss any TV program, in addition to its individualization in presenting the entire encrypted channels' packages through one receiver, as well as expanding its channels by adding a bundle of 150 channels with HD channels, that the main inVision package includes more than 50 channels along with the addition to (inVision Naqa'a) package, to meet the desires and requirements of the entire family members in watching more purposive channels in different and diverse fields. All customers can benefit from this offer through calling customer care center 907 or (inVision.com.sa) or khidmati portal or visiting one of the customer services offices or sending SMS with 4040 to 907.

## Qtel Launches Mobile Money

Qatar Telecom (Qtel) has launched the 'Mobile Money' service allowing its mobile network users to transfer money within the country and overseas. The free-to-register service will also allow customers to pay Qtel bills, make merchant payments and buy a wide range of services when the next phase goes live. Qtel Mobile Money has been developed in collaboration with partners including Qatar National Bank (QNB).

## Viva Bahrain Launches Manchester United SMS Service

Viva Bahrain has announced the launch of the Manchester United SMS service alongside the "Win a Trip" campaign. The campaign will give 40 customers the once-in-a-lifetime chance to win a trip to the "Theater of Dreams" Old Trafford, and watch their team live in action. Subscribers to the service will enter 4 draws throughout the season, and 10 winners will be selected at each draw to fly to Manchester and attend a match in Old Trafford fully paid by VIVA. According to the Viva CEO, "This service ensures they will receive real time updates on the club and gives them an amazing chance to live their dream and attend an exciting match at Old Trafford". All Viva Customers can subscribe to the Manchester United SMS Service is send an SMS with the text "MU" to "88088".



**STC**  
الاتصالات السعودية



## Operator Leader's Vision

**Dr . Saad Dhafer Al Qahtani**  
Group CEO Strategic Operations  
Saudi Telecom Company

**Q.** Please tell us briefly about how STC is providing its customers with high quality broadband through its FTTH technology?

**A.** STC has aggressive plans to roll out fiber technology throughout the kingdom. We are targeting key areas with high-speed fiber offerings and state-of-the-art multimedia packages. As an example, we have just recently launched our cutting edge X-Band Premium package covering high speed broadband bundled with unlimited fixed voice, a QUICKnet mobile broadband dongle and our state-of-the-art invasion IPTV service.

Over FTTH, all of the voice, internet, and TV services are delivered with guaranteed quality of service ensuring internet bandwidth stability as well as HD video quality and streaming capabilities.

To that end, STC is deploying state-of-the-art monitoring systems across the core and access network, all the way to the customer premise equipment that allows us to be proactive in predicting service faults and preventing it before occurring.

**Q.** How FTTH implementation in Saudi Arabia has opened the doors of advancements in broadband world?

**A.** With the youngest population in the world, and the highest YouTube palybacks per user, the demand for bandwidth-hungry applications and as a result high-speed internet is expected to boom in Saudi. FTTH will allow operators to leverage this opportunity and offer services like IPTV, HD video, 3D, gaming, smart homes, etc... Moreover, FTTH will enable tele services like e-learning, e-health, etc.



**Q.** In order to implement FTTH, have you collaborated with other telecom players or any other stake holders in the market as well?

**A.** STC is working closely with civil authorities and municipalities to ensure that fiber deployment is as fast and smooth as possible without any disruption to the daily lives of people. With regards to other telecom players, STC is taking the lead on deploying the latest FTTH technologies single handedly to ensure that its subscriber base has access to high-speed broadband access as soon as possible.

**Q.** How STC is planning a range of initiatives to drive demand and uptake for broadband in the country?

**A.** First and foremost, the sophistication of the Saudi consumer is the most important driver to the uptake of broadband. Saudi users are among the heaviest consumers of online multimedia and applications that demand high bandwidth. This fact will naturally drive up demand for high speed broadband. Furthermore, STC is taking on three key initiatives to support this drive:

- A.** Make broadband affordable – we are looking at continuously building new offerings that will make high speed access affordable to the masses.
- B.** Increase awareness – we are launching targeted campaigns in key areas to increase awareness of benefits of having broadband connectivity.
- C.** Bundling – we are introducing attractive bundles including internet, voice and TV that will offer a complete Home solution to Saudis.

**Q. How do you look at the future of FTTH technology in SAMENA region?**

**A.** The future of FTTH is very bright. SAMENA will see an explosive growth in internet traffic. According to a recent Cisco study, MEA broadband traffic is expected to grow at 64% and multimedia will be the primary driver of this boom. This strong demand for multimedia applications will drive the demand for high speeds. To meet this demand, FTTH is a must since it is the only technology capable of providing customers with a true high-speed broadband experience.

**Q. In your opinion, how consumers are affected by the traditional broadband technology? How FTTH is improving the Quality of Service?**

**A.** Traditional broadband can be viewed as technology that exposed customers to benefits that internet offers in terms of entertainment, education, connectivity and many others. As customers are getting more exposed to these services, there is an increasing demand for bandwidth heavy richer services (e.g. online video, IPTV etc.) with guaranteed quality and performance. This QoS goes beyond bandwidth or speed to include factors such as jitter and latency which can only be guaranteed by the next generation FTTH network.

**Q. What barriers you have faced by far during the implementation of FTTH?**

**A.** As is the case with introducing any other new technology we are facing some technical challenges like equipment compatibility, IT support systems requiring upgrades, etc. but let me focus on one of the key challenges that will face operators deploying FTTH, and it is the deployment plan, and how can we ensure to select the right locations where demand will originate and eventually ensure high utilization of our network and make the business case positive; and this requires in-depth understanding of the market today and good assessment of the future evolution of demand by geographical area and demand profile.

**Q. What is the stance of other telecom players towards the deployment of FTTH networks in Saudi Arabia? What are your expectations in terms of revenues?**

**A.** Telco players are recognizing the importance of fiber. In fact, other players in Saudi such as Mobily have started deploying fiber and selling high-speed broadband packages in line with what STC is doing. However, to build demand for high speed broadband, one needs to also provide the right applications and services that fuel the need for such speed. We believe that with our rich multimedia portfolio and wide-spread FTTH deployment, STC will lead the broadband market in Saudi.

**Q. Is STC looking at infrastructure sharing regulations to boost FTTH deployments? Do you think PPP (Public Private Partnership) would expedite the process of FTTH deployment?**

**A.** STC looks favorably towards and is keen to support any sort of regulation that helps accelerate deployment of FTTH in Saudi to ensure that customers have access to high speed broadband.

Building infrastructure is CAPEX intensive. In today's competitive world, there are always decisions in terms of prioritization and rollout plans that need to be made when it comes to investing in FTTH. In order to ensure that fiber is made available to the majority of the Saudi market in a short duration, PPP should be considered as a viable option where Government support will ensure that deployment is happening fast and across a wide footprint.

**Q. Are there any special policies and regulations pertaining to FTTH in Saudi market?**

**A.** At the moment, there is no specific policy or regulation related to FTTH deployment. However, it is likely that we will see such a move by the regulator as the Government starts taking serious steps toward digitization of the Saudi economy. Broadband is now a basic necessity for our citizens and the Government has to support telecom operators deliver broadband to the widest possible population base.

**Q. Do you think that IPTV and other multimedia applications are the real FTTH enablers? How is your IPTV experience so far?**

IPTV and multimedia in general (gaming, streaming, etc.) are important FTTH enablers as they are currently the most bandwidth-hungry and QoS-requiring applications. However, operators need to keep an eye on changing customer behavior to potentially identify upcoming applications. As customers become more active online and using rich multimedia services, they will demand guaranteed quality of service and be willing to pay for high speed network.

Our IPTV experience has been fantastic. We were the first in the kingdom to launch such an advanced service and have got a lot of positive feedback from our customers. We are continuing to invest in increasing the richness of our IPTV portfolio and content and enabling more and more subscribers to gain access to these services via our FTTH deployment.



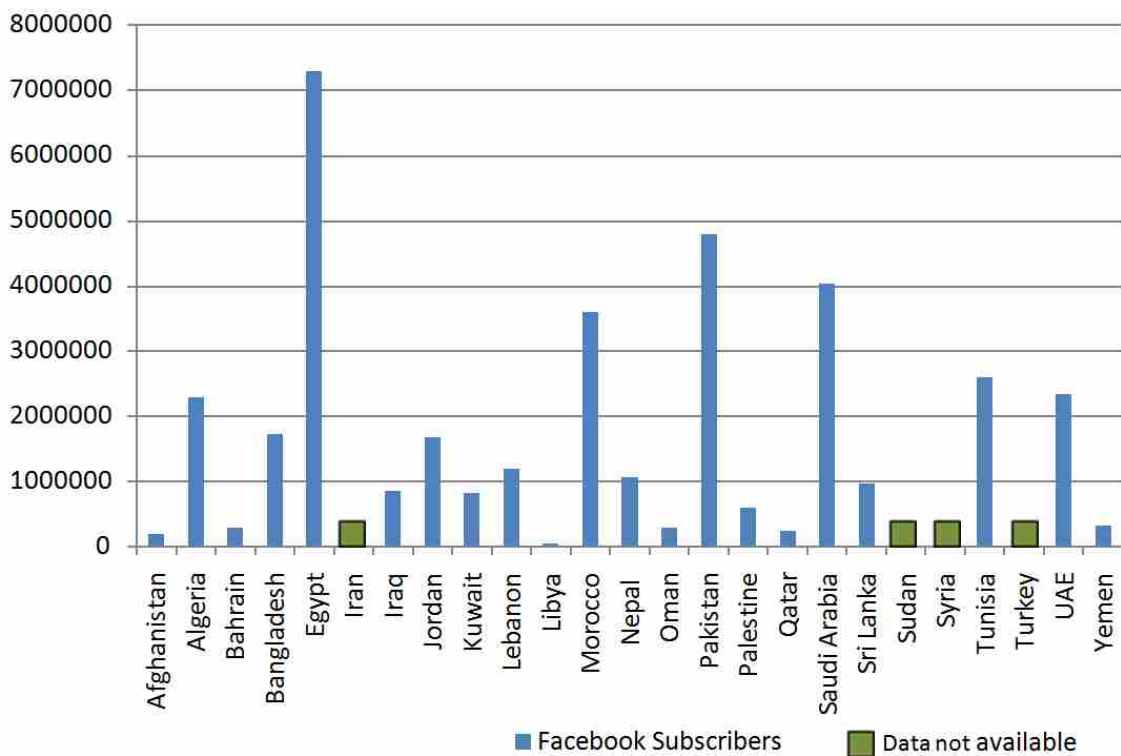
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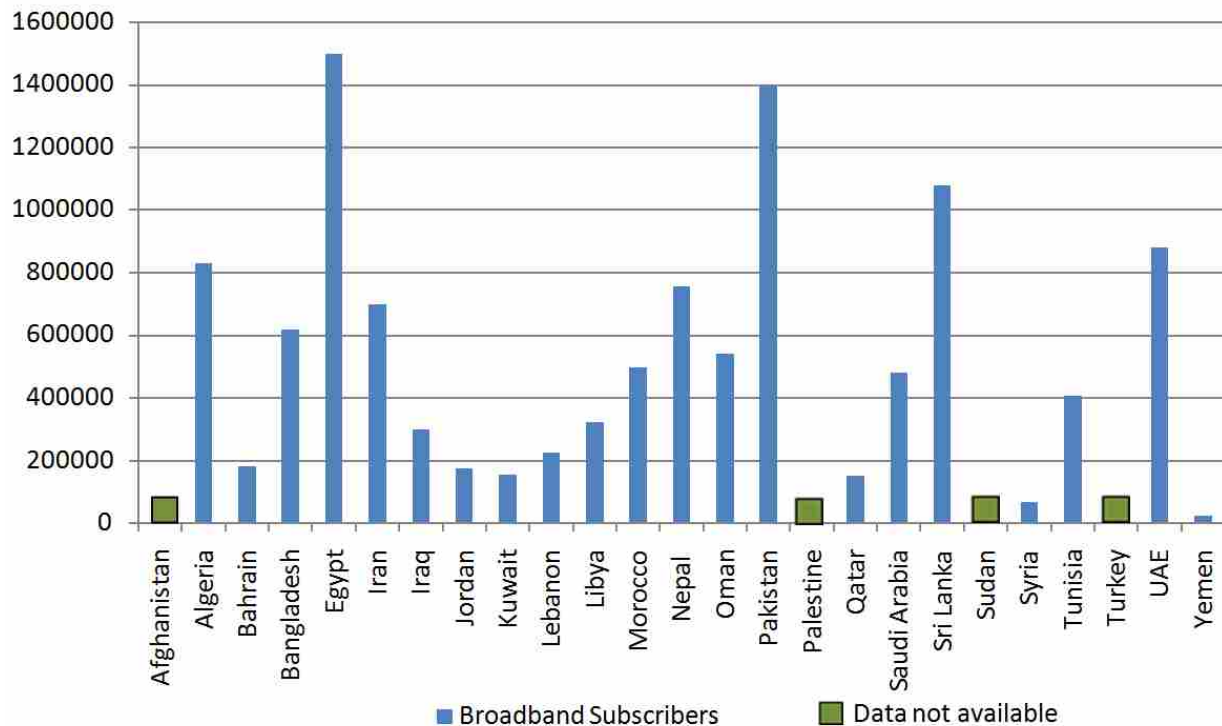
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### SAMENA Region Facebook Subscribers



## SAMENA Region Broadband Subscribers



Research Note: Ranking done by SAMENA based on data from The Internet Stats. Within the SAMENA region, Egypt appears to have the highest number of facebook subscribers which could be attributed to the fact that the country has the highest broadband penetration as compared to the other markets in the region. Pakistan has the 2nd highest number of facebook subscribers in the country while Saudi Arabia is at number 3. In terms of broadband subscribers, Egypt, Pakistan and Sri Lanka are at the top three positions. Nonetheless, the highest number of subscribers may not always result in the highest penetration rate. UAE, for instance is at number 4 in terms of number of broadband subscribers, but the broadband penetration is much better than majority of the other markets. Morocco and Tunisia are at number 4 and 5 respectively, in terms of facebook subscribers. Emergence of broadband in the regional markets is resulting in increasing level of participation in the online social media applications, as well multimedia content. The good performance of regional markets in terms of broadband can be attributed to the deployment of wireless access technologies and better infrastructure including growing number of FTTx numbers in these countries, while the growth of fixed line in Sri Lanka is mainly due to the WLL service, which provides good coverage and cost effective deployment.

Data Source: Internet World Stats

Image Source: SAMENA



# REGULATORY NEWS

## Nepal's Telecoms Penetration Reaches 47.3% in 2011

NTA has published its latest market development. According to report Nepal had 13.51 million telephony users. The total comprises 11.92 million mobile subscribers, a penetration rate of 47.27% of the Nepalese population, up from 11.60 million in mid July. 840,828 fixed subscribers, and 753,213 other telephony users (satellite and limited mobility services). Nepal Telecom is the biggest player in both mobile and fixed market. Furthermore, the country counted 3.28 million internet users, up from 2.11 million reported in mid-July and the penetration rate stood at 11.46 percent. Some 2.99 million people connect to the internet using GPRS, followed by 153,090 internet users that connect through CDMA 1X. Some 71,664 internet subscribers use ADSL and there were also 16,039 cable internet users, and 20,039 dial-up users. Also, 24,555 internet users connect through other wireless or fiber optic technologies.

## PTA Updated PTCL's Basic Fixed Voice Tariffs

PTA has updated the maximum tariffs that fixed line incumbent Pakistan Telecommunication Company Ltd (PTCL) can charge for its wire line voice services. The regulator has set down a cap of PKR500 (USD5.69) and PKR750 (USD8.55) respectively for new connection charges in rural and urban areas respectively, with monthly line rental set at a maximum of PKR199. The PTA has also capped calling rates, with calls to on-net and off-net fixed line numbers to be set at PKR1 per minute and PKR2 per three minutes respectively. Long-distance calls meanwhile will be charged at no more than PKR1 per minute (on-net) or PKR2 per minute (off-net). Rounding out the watchdog's new charge limits, fixed to mobile calls are to be set at no more than PKR2.50 for both local and long-distance calls.

## Bahrain Plans New Telecom Strategy

Bahrain is developing the third national telecommunications plan, which sets out the government's policy and strategic direction for information and communications services. The new plan will bring the country at the forefront in technology development so that the relevant sectors continue to contribute to Bahrain's economy. This plan will be shaped in line with Bahrain's Economic Vision 2030 and the accompanying National Economic Strategy. The plan, which is developed every three years, has direct impact on the uptake of telecommunications technology. The TRA has signed an agreement with IntercaiMondiale and the plan is expected to be completed in mid December.

## NTA Plans Merger and Acquisition

Nepal Telecommunications Authority (NTA) formed a five-member committee to develop merger and acquisition policy. Former secretary Madhav Paudel-led committee is directed to recommend the authority to submit detailed report on the possibility of merger and acquisition in the telecom sector. The committee will study the contemporary trend of merger and acquisition throughout the world and suggest the government the most suitable model. Furthermore, committee is also directed to carry out study on the need of merger and acquisition of telecom service providers in Nepal. The government last May had formed a committee under the coordination of Baburam Pokharel to carry out study on the situation of rural telecom service providers and make necessary recommendations to the government for their welfare.

## ICASA Has Published New Digital TV Proposals

The Independent Communications Authority of South Africa (ICASA) has repealed its previous digital migration regulations, and placed draft digital terrestrial television regulations on the table for public comment. The country is set to turn on digital television using the European DVB-T2 standard in April, with a full commercial launch scheduled for next September. Analogue broadcast will be turned off at the end of 2013. The authority said the technological standard has changed since it published the previous set of regulations in February last year. At the beginning of this year, SA decided to migrate using DVB-T2 and not its forerunner, DVB-T. According to local portal Mybroadband, Icasa explained in a Government Gazette that the new standard is 50 percent more efficient and it is necessary to assess the implications of this increase on the allocation of capacity. It adds that the turn-off timeline places "great pressure" on all stakeholders to put complex systems in place, and it must change its regulations to meet any future contingencies.

## IctQatar Setting up Consumer Protection Dept

IctQatar is setting up a facility to deal with inquiries and complaints in addition to telecom operators' obligations vis-à-vis services and products. The Consumer Protection Department will establish a dedicated call centre to handle customer inquiries and complaints. The department will also conduct programmes to increase awareness about consumer rights. The call centre will utilize a 'ticketing system' to record and track complaints or inquiries, allowing consumers to follow-up and check progress of their complaints or inquiries, easily and efficiently. However, ictQatar has suggested that consumers first try to resolve their issues with the service provider concerned before approaching the call centre. ictQatar said the Consumer Protection Department will also publish regular reports on the quality of services, including network quality, signal strength and consumer relations. ictQatar will continue monitoring the pricing of services.

## Oman's TRA Plans Regulations on Premium Rate Services

Oman's Telecoms Regulatory Authority (TRA) has issued a draft regulation on its website to seek public opinion on new regulations related to Premium Rate Services (PRS). Premium rate services include general information such as weather forecasts, traffic news, stock exchange reports and sport results, as well as advice and entertainment services. According to TRA, the draft regulation aims at ensuring awareness about PRS that do not fall under normal tariffs. Such services include voting and dedication SMS through TV and radio channels and SMS for downloading ringtones and games. The official said that TRA is inviting the public to read the document, which has been put on its website for better information and constructive comments. Opinions and suggestions may be submitted to the authority by November 20, 2011.

## PTS Has Launched 1800MHz Auction

Sweden's telecom regulator, the Post & Telestyrelsen (PTS) has launched an auction to award block licences to use radio transmitters in the 1800 MHz band. The auction assigns 2x35 MHz of spectrum. In the band, there are also existing licensees who hold a total of 2x35 MHz. By awarding more licences for the use of the 1800 MHz band, PTS will have more technology and service neutral frequencies on the market, which is part of the Government's broadband strategy. The auction will be conducted in two stages. All licensees in the band are guaranteed to have contiguous spectrum. PTS will publish interim results, namely the names of all winning bidders, and how much spectrum they have won and at what price.



## THE INEVITABILITY OF INFRASTRUCTURE SHARING

Progressive regulatory bodies across the region appear to be fully intent on bringing the most advanced technology to the users and the enterprise market. Co-operation enhancement across the ICT ecosystem, particularly among telecom operators, is also seen improving. Furthermore, policy-makers are observed creating, albeit

*Progressive regulatory bodies across the region appear to be fully intent on bringing the most advanced technology to the users and the enterprise market*

gradually, incentives for operators to invest in broadband facilities, technologies, and services. The same progressive regulatory mindset has also been a catalyst for developing and launching broadband national plans. Such plans are being put forward for public-private partnered execution, and revolve around expanding broadband connectivity to underserved areas as well as inviting greater investments in fiber infrastructure.

Following large-scale infrastructure expansions, regulatory bodies and the policy-makers have become attuned to the practice of infrastructure-sharing. In this context, and in the views of both policy-makers and regulators, the rise in shared infrastructure investments has resulted in the formulation of better price structures for mobile, fixed-line, and broadband services. Furthermore, the resulting choice for the customers to migrate from one operator to another has simply become a function of great customer experience, no matter which operator provides it.



In the views of telecom operators, the willingness to share infrastructure amounts to achieving business openness, which, in turn, translates to cost advantages. However, operators need to strategize on infrastructure-sharing by keeping in view the following dimensions to sharing: Objectives and incentives; commercial versus environmental drivers; implications of extending availability of the network to competitors; and the extent of network sharing to efficiently achieve operational and cost benefits, while retaining independence in decision-making as regards capacity and service differentiation.

Clearly, times have passed when commercial differentiation was measured by the expansiveness of the network. In the current times, differentiation depends on service platforms, service quality, data rates, and overall customer experience. Thus operators with existing large networks have the option and the incentives to be open toward infrastructure-sharing.

One of the most prominent examples of infrastructure-sharing has been that of UK-based Telefonica and Vodfaone. What both operators have done is, achieve passive infrastructure-sharing. As a result, both companies are efficiently managing operational costs, but still make independent decisions on their bandwidth provisioning, site capacity, and service offerings. Notably, passive infrastructure-sharing is also emerging in several markets of the SAMENA region and the globe, driven by both cost and environmental pressures.

The more challenging aspect of infrastructure-sharing is

*The more challenging aspect of infrastructure-sharing is active sharing*

active sharing, as it concerns, among other things, operators' management of their sensitive site data and may require extensive investment on site and data management systems. Nonetheless, as operators launch 3G and 4G networks, the speculation that operators would require sustainable economical ways to deliver advanced data services—and thus would need all the cost advantages that they can get—gains credence. Network roll-outs that are realized through collaboration, that is sharing, have a potential to allow operators to meet high bandwidth demand more effectively and reduce risks that are associated with any network expansion project.

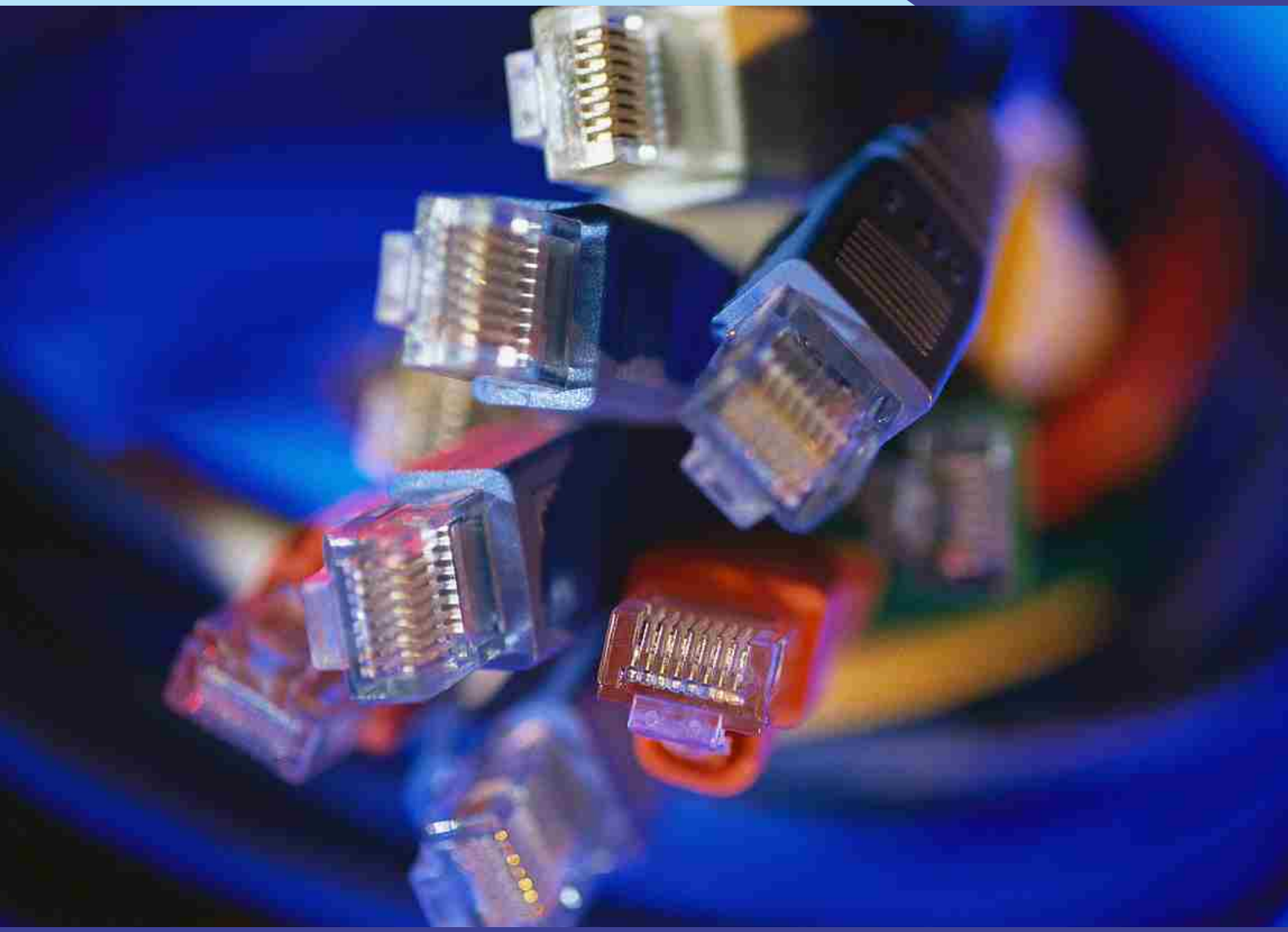
While, historically, it has not been crucial for operators to engage in infrastructure-sharing in order to succeed at business, the change in trend is inevitable. Next-generation networks will put greater pressures on operators to collaborate with other market players, as well as create and manage their unique service-based value propositions for their specific customer bases.

*Next-generation networks will put greater pressures on operators to collaborate with other market players*

Additionally, as policy-makers are witness to the fact that telecom operators make tangible contributions toward achieving and sustaining plausible GDP growth, they too need to act in sustaining investment incentives for operators, so that the latter can continually improve and invest in service portfolios.

### **Izhar Ahmad**

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## NETWORKING SHARING AND ITS SIGNIFICANCE IN CAPEX/OPEX SAVINGS FOR TELCOS

Network sharing allows for two or more telcos sharing their network infrastructure, with the plan that the individual CAPEX and OPEX will be reduced. The idea of network sharing revolves around the approach the resources are optimally used in a way that all the parties involved are benefitted. Network sharing can be of different types and at different levels, each one having its own significance in the give scenario. With growing bandwidth demands, increasing competition, and price growth, telcos are constantly challenged and are under pressure to upgrade their infrastructure and roll out advanced technologies. To overcome such challenges, the telco community is adopting various strategies with network sharing as one such strategy.

Growing demand for broadband access results in the need for advanced technologies which in turn demands greater investments in infrastructure rollouts by telcos. This trend will increase the CAPEX to deploy new technologies to offer broadband to masses. Nonetheless it is obvious that the cost for developing wireless broadband technology is considerably lower as compared to the traditional broadband access networks. Similarly, ROI is also considered to be a hurdle in deploying broadband networks in the remote areas. This is mainly because the cost of building infrastructure for broadband access in such areas is much higher and the ROI is considered to be low, thus operators, in general, are uncertain about infrastructure rollouts in these areas thus resulting in a digital divide. The resulting technological divide has been an area of concern which can be tackled through strategies such as public private partnership, and network sharing among others.

*Network sharing is considered to be the ideal strategy for CAPEX and OPEX reductions.*

Network sharing is considered to be the ideal strategy for CAPEX and OPEX reductions. Whether it is a developed market where telcos are under constant pressure of strong competition or emerging markets where low ARPU is an issue, the telcos are facing the challenge of quick rollouts of infrastructure.

Infrastructure	Active Sharing	Passive Sharing
Antennas	High	None
RAN equipment	High	None
Transmission equipment	Low	None
Other (ex. civil works)	Medium	High

Network Sharing: Potential for CAPEX Saving

Source: Source: Mobile Network Sharing: A strategy for success, Accenture

Infrastructure	Active Sharing	Passive Sharing
Site rental/lease	High	High
Transmission	Low	None
Maintenance	Low	None
Other (ex. energy)	Medium	Low

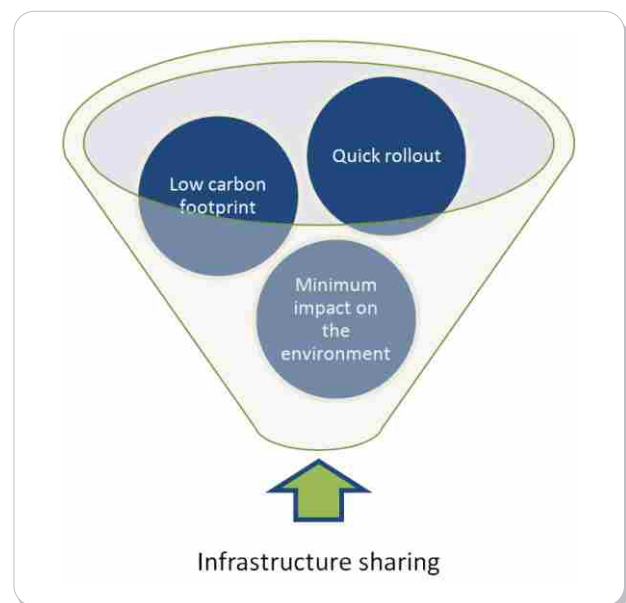
Network Sharing: Potential for OPEX Saving

Source: Source: Mobile Network Sharing: A strategy for success, Accenture

Apparently, there are several factors behind this low broadband penetration which includes poor infrastructure, slow pace of de regulation, less attention towards modern technologies etc. Necessary measures taken by the governments, regulatory authorities, operators and other stakeholders are quintessential to promote the uptake of broadband. For example, most of them have already opened the fixed-sector to competition in addition to the cellular sector and shown good results. A number of markets in the SAMENA region have shown interest to fund both basic telephony and broadband services using national service funds; and some markets, such as Pakistan, Qatar, Saudi Arabia, have been fairly successful in doing so. It is important that an inter-market dialogue be initiated to help with experience-sharing among regulatory bodies and operators. Additionally, network sharing among operators is also important for providing broadband access in remote areas where the infrastructure is limited and the cost of deployment is not economically viable due to the weakness of consumer's purchasing power, high cost of equipment, and less-dense population among other factors.

*A number of markets in the SAMENA region have shown interest to fund both basic telephony and broadband services using national service funds; and some markets, such as Pakistan, Qatar, Saudi Arabia, have been fairly successful in doing so*

For the purpose of progression in the ICT sector, governments as well as the private sector is expected to shift their roles by paying more attention to services such as content, e- Health, e- Learning and e- Government. For that reason, the importance of infrastructure sharing to rollout new technologies quickly and cost effectively to offer broadband access has increased a lot.



Some of the clearly understandable benefits of infrastructure sharing are considered to be the quick rollouts of modern networks, reducing the carbon footprint of the telcos that will lead to minimum impact on the environment, and reduced investment required to expand the coverage. Network sharing can indirectly contribute to avert anti-competitive practices among the market players by keeping the interconnection rates at a desired level that will lead to

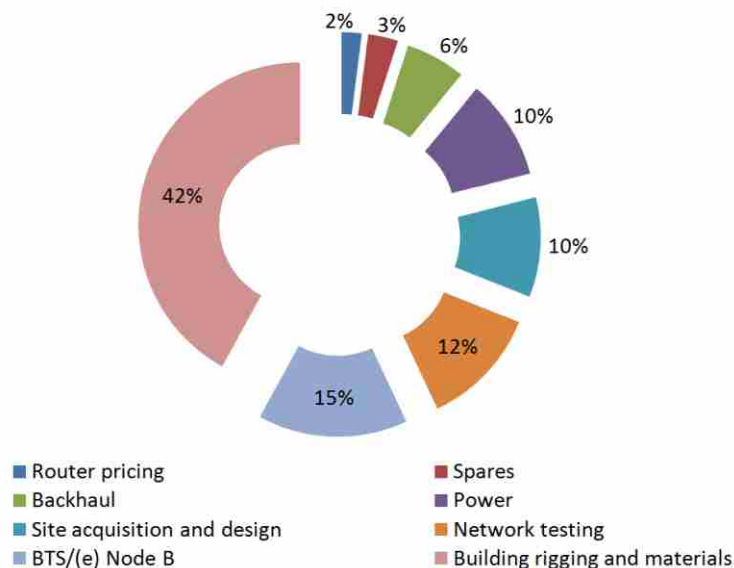
*Almost, 70 percent of the CAPEX is required for site acquisition, access equipment, civil works and laying the transmission network*

Consumer services revenue from 4G is expected to increase to US\$70 billion by 2014. WiMAX is already being used in various markets as cost effective wireless broadband access and backhaul technology. LTE deployments appears to be gaining momentum, it is likely that WiMAX, LTE and other wireless broadband technologies will be used extensively for broadband access to cope with bandwidth hungry application. Despite so much focus, new investments, and adoption of transmission and access technologies, the overall broadband penetration is still below the global average. This makes a huge potential for broadband service providers, be it WiMAX, LTE or any other technology. A number of big players in the Middle East have recently completed LTE trials with some of them already in the launching phase of this new 4G technology.

In the SAMENA region, particularly in the Middle East, it appears that internet access will be largely driven through next generation wireless technologies requiring huge investments. A number of value added services are expected to add to the growing revenue of next generation service providers. Industry analysts believe that operators will start to offer more "smart services". Gaming and P2P video sharing services are expected to be the most popular 4G services. Nonetheless, the need for huge investments required deploying faster, modern and more resilient networks will keep the pressure on the telcos thus driving them to focus on network sharing strategies.

*A number of big players in the Middle East have recently completed LTE trials with some of them already in the launching phase of this new 4G technology*

**Infrastructure Sharing Potential Areas In terms of CAPEX Saving**



**Almost, 70 percent of the CAPEX is required for site acquisition, access equipment, civil works and laying the transmission network.**

**Zakir Syed**  
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 SAMENA Telecommunications Council



## A SNAPSHOT OF REGULATORY ACTIVITIES IN SAMENA REGION

Telecommunications companies have taken a number of cost-cutting measures to alleviate the massive effects of the ongoing global financial crisis, including cutting down their workforce. With investment deficiencies piling up, temporary solutions have been taken. And while temporary solutions are necessary for companies to weather the storm, long term solutions have begun to surface like outsourcing network operations, investing in network business information, and infrastructure sharing.

These days, telecom companies cannot afford to lose money as the global economic climate is still on unsteady footing, and ironically, one way for telecom companies to generate more revenue is to broaden their reach by building new cell sites in areas with little or no service at all. So how do companies go around the fact that they need to shell out money to broaden their reach?

A recent report by management advisory and investment firm Delta Partners emphasized the need to utilize infrastructure sharing strategies. The said report was

geared toward the Middle East and North Africa (MENA) region and it underlined a projected US\$8 billion in savings over a period of 5 years for telecom companies. If the report's estimated savings are to be believed, then infrastructure sharing could be a good solution to counter investment deficiency.

Telecom infrastructure sharing, as the name suggests, is a cost effective solution for telecoms to expand their reach to other areas. Rollout costs for new sites are far from inexpensive, and they eat up a large portion of telecom companies' budgets. A telecom company looking to broaden its reach without spending too much on building new towers can find a cost effective solution in sharing another company's assets.

There are several infrastructure sharing options that companies can take, limited only by specific telecom legislation in different countries. Also, the options of sharing depend on what electronic and non-electronic infrastructure companies are willing to share or lease.

**Here are some of the possible infrastructure sharing options companies today can tap into:**

#### **Passive Infrastructure Sharing**

Is what the name suggests; it allows for telecom companies to share passive or non-electronic infrastructure (non-electronic infrastructure accounts for the larger chunk of rollout costs). In cell sites, "passive" equipment includes the tower itself, electrical supply, air-conditioning equipment, and technical premises, among other things. Thus far, passive infrastructure sharing is the most commonly used option by telecom companies around the world.

#### **Active Infrastructure Sharing**

This option involves the shared use of electronic infrastructure in a cell site, including the base tower station, switches, antennas, transmission and signal processing transceivers, and microwave radio equipment.

#### **Spectrum-sharing**

This option is basically a lease agreement between two companies. With spectrum-sharing, a company can lease a part of another company's spectrum which enables both companies to provide service to the same customer. This type of infrastructure sharing is utilized in many parts of the world; it promotes better service at competitive prices and benefits customers.

There are other types of telecom infrastructure sharing types, each catering to a specific need. These include site sharing, mast sharing, antenna sharing, RNC (Radio Network Controller) sharing, backbone sharing (switch and router sharing), geographical splitting, frequency sharing, and base station sharing. With these, telecom companies have a lot of options available to them.

Today's economic climate calls for companies to run like well-oiled cost efficient machines; companies can benefit from even the smallest savings. Measures such as telecom infrastructure sharing provide companies with a means to save on rollout costs and in the long run, the said savings can be used to counter shrinking investments. It is a solution that might prove practical, especially for companies looking to expand.

Infrastructure sharing opens a number of possibilities for telcos; savings translate to more capital to reinvest on building new sites, and it may eliminate the need for most companies to slim down the workforce while still remaining competitive, among others. The customers benefit too, as the healthy competition promotes better quality of service and lower costs..\*\*

\*\*nbi-magazine.com

## Country-wise Regulatory Activities

### **Afghanistan**

Due to sector friendly policies of the regulator some 15 million Afghans today use mobile phones and a full 85% of the population lives within the combined network coverage of the four major telecommunications companies; whereas in 2002, less than 200,000 people in Afghanistan had access to telephones. This technological leap connects Afghans to each other and to the economy in ways that were unimaginable just a few years ago. The wide availability of mobile phones opens up possibilities for finding new solutions to challenges that Afghans face every day. USAID has recently given three grants aiming to help create a mobile banking system that all Afghans could use. The Afghan Education Minister recently highlighted the urgent need for mobile payments when a staff member of the Education Ministry was killed while transporting cash in northern Afghanistan to pay teachers. In fact, thousands of Afghan teachers had to wait months to get paid due to the difficulties and dangers of transporting money. The second grant is designed to connect the new Afghan electricity utility with mobile phone billing and payment for electricity service. The third grant funds a partnership of another telecommunications company with a micro finance consortium whose clients are predominantly women.

### **Algeria**

Algerian regulator officially invited bids for the country's first batch of 3G mobile licenses. Operators had until September 30, 2011 to register their interest, with the winning bids set to be announced on October 23. The telecoms watchdog stated that the 3G licenses will be valid for commercial use from the first quarter of 2012. Algeria is currently home to three mobile operators – Orascom Telecom Algeria (Djezzy), Algerie Telecom Mobile (Mobilis) and Wataniya Telecom Algeria (Nedjma) – whilst the heavily rumored involvement of a fourth operator remains shrouded in mystery. Although no financial specifications have been confirmed by the regulator so far; local press reports have suggested that the licenses will be priced at DZD3 billion (US\$41 million) apiece. The lengthy wait for a formal UMTS auction has proven to be a serious bone of contention for Algeria's wireless operators in recent years. In May 2008 plans for a formal 3G tender were revealed by ARPT, with the regulator issuing an invitation for local and international parties to register their interest by June 30, 2008. Much to the frustration of all involved, the issue has thus far failed to make any tangible progress. Local media reports from July 2010 suggested that the government was considering skipping 3G licensing altogether and awarding Long Term Evolution (LTE) licenses instead, but last month

Algerian telecoms minister confirmed that the government had opted to pursue 3G on economic grounds. In another move an unnamed Orascom Telecom source has said that Shearman & Sterling, the law firm hired by the Algerian government, has valued the company's Algerian unit Djazzy at US\$7bn. Orascom Telecom executive chairman told that the company has not received any official information on the evaluation of Djazzy.

## Bahrain

The regulator issued warnings to Batelco and Viva about the cost of mobile originated calls to certain international destinations. The regulator says that it started an investigation into anti-competitive practices at the two companies following complaints from a group of licensed operators. Following the investigation, the notices issued by the regulator allege that the operators' pricing constituted an abuse of dominance in the international mobile telecommunications market, and breached the conditions of competition provided for by the Law. Regulator will subsequently issue its final decision following consideration of Batelco and Viva's responses on the notices.

## Bangladesh

The Bangladesh government finalized the spectrum fees for four mobile operators whose licenses are set to expire on November 15 after fifteen years. The government has set the fee at BDT 1.50 billion for all spectrum bands but each operator has to pay a different fee per MHz of spectrum based on their market share. Operators with a market share of over 20% will have to pay an additional fee while operators with less than 20% market share pay a reduced fee. Grameenphone will have to pay BDT 32.41 billion for its 14.6 MHz of spectrum, Banglalink is required to pay BDT 19.71 billion for its 12.4 MHz, Robi will have to pay BDT 19 billion for 12.8 MHz, and Citycell is expected to pay BDT 4.50 billion for its 10 MHz of spectrum. The operators will also have to pay BDT 100 million each for license renewal fees. Additionally, the operators will be required to share 5.5% of their revenues with the government and pay 1% of their revenues into the Social Obligation Fund. The operators are required to pay 49% of the spectrum charges in November when their licenses will be renewed and the remainder can be paid in three installments due in May 2012, November 2012, and May 2013. The licenses of two other operators – Teletalk and Airtel – are set to expire in 2020. The regulator also published a document on Revision on National Frequency Allocation Plan (NFA) for public consultation. Comments and suggestions on the issue from the stakeholders have been requested by October 5, 2011. Regulator issued regulatory & licensing guidelines for renewal of cellular mobile phone operator license for establishing, operating and maintaining cellular mobile phone system and services in Bangladesh. Four mobile operators in Bangladesh have asked the regulator to reconsider certain rules for 2G license renewal. Grameenphone, Banglalink, Robi, and

Citycell met the regulator to discuss the VAT, service introductions, and loan regulations of the license renewal rules. The operators are concerned by the VAT on top of the spectrum charges. Currently, operators do not include VAT in the fees they pay to the regulator. Another concern is that spectrum charges are to be paid in US dollars. Further concerns include the rule that operators need to seek permission from the regulator for taking out loans and provide loan related information to the regulator. Additionally, licensees need to obtain written approval before introducing any service, offer, or package. Mobile operators will also not be allowed to have more than 50% of their employees in each tier come from other countries. According to the figures from regulator mobile operators in the country ended August with a combined total of 79.677 million mobile subscribers, up from 78.075 million in July. Mobile operator Grameenphone led the market with 34.979 million customers, compared with 34.412 million a month earlier. Banglalink's (Orascom Telecom Bangladesh) customer base rose to 21.621 million from 21.072 million subscribers, while Robi (Axiata Bangladesh) ended the month with 14.971 million, up from 14.643 million customers in July. Airtel Bangladesh grew its customer base to 5.164 million from 5.097 million a month earlier, while Citycell's (PBT) subscriber base increased to 1.778 million from 1.718 million. Teletalk's subscriber base stood at 1.161 million, up from 1.131 million subscribers a month earlier. According to Telecommunications Minister, Bangladesh Limited, will launch its 3G services on March 26, 2012; and the 3G spectrum will be auctioned after six months of test-run by the operator. According to reports, the minister has said that the 3G technology will make mobile telephony much more efficient with high-speed data transfer facilitating users to watch mobile TV, make video calls, use navigation equipment and access many other services. As per sources, the minister hopes the company will be able to complete installation of necessary infrastructure by January to launch the 3G operations. He further noted that both foreign and local companies will be allowed to compete for 3G spectrum after the planned test-run in September next year. He added that the guidelines for wireless telecom spectrum auction would be finalized by 2012. State-owned Bangladesh Submarine Cable Company Ltd (BSCCL), the sole provider of undersea high speed capacity, has reported that the usage of international internet bandwidth in Bangladesh has risen from 7.5Gbps in 2008 to 22Gbps currently. BSCCL's Managing Director said that the company will upgrade its maximum capacity to 160Gbps by February 2012 to cope with future demand, especially from 3G UMTS-based mobile services, which are expected to be licensed next year. Recent rollouts of wireless broadband services based on WiMAX and CDMA2000 1xEV-DO Rev-A, have helped push up the levels of internet traffic. According to the report, the price of wholesale bandwidth in Bangladesh has fallen to BDT10,000 (US\$131) per Mbps (following a drop from BDT75,000 to BDT27,000 in 2007), but still remains high by global standards. Recently the government has given permission for six new privately-owned terrestrial fiber cable links to connect to

international capacity, which will kick-start bandwidth price competition, and it plans to introduce a second submarine cable connection to the country, also run privately. BSCCL, which operates a landing station for the SEA-ME-WE-4 consortium submarine cable, said that its planned capacity upgrades will cost BDT500 million (US\$6.6 million). In the financial year ended June 2011 the company earned BDT545 million in profit, up from BDT115 million in fiscal 2009. BSCCL was spun off from incumbent telco BTCL in July 2008, but may be integrated once again with the national PTO under state proposals. Orascom Telecom Holding has confirmed that its Bangladeshi subsidiary Orascom Telecom Bangladesh (OTB) has received the final 2G license renewal guidelines. According to the terms and conditions outlined by the regulator within the received guidelines, OTB is to pay approximately BDT 19.8 Billion (equivalent to approximately US\$263 million) over three years as spectrum and license renewal fees. In addition, according to the received guidelines, the validity of the license renewal is for 15 years. Chief Executive Officer of OTH while commenting said that they are very pleased with the fruitful outcome of the one year long negotiations with the Bangladeshi Government regarding the 2G license renewal guidelines. The Ministry of Posts and Telecommunications (MoPT) and the regulator are now at loggerheads over issuance of 3G license to the state-owned cell-phone operator Teletalk. Sources said though the telecom ministry decided to offer 3G license to Teletalk, the regulator has recently refused to allow it to the company. However, Posts and Telecommunications Minister reiterated his commitment on issuing the 3G license to Teletalk. He said the government will offer the license to the state-run mobile operator on an experimental basis to help the company survive and the decision of ministry is final. The minister noted that the government took a combined decision regarding 2G license renewal fee in a bid to avoid possible allegation of corruption.

## Egypt

An Egyptian Administrative Court postponed until December 17 a ruling on a lawsuit launched against the Egyptian Financial Supervisory Authority, or EFSA, by a number of shareholders in Orascom Telecom who are trying to prevent the telco from being carved up, people familiar with the matter said. The breakup of Orascom telecom, or OT, was scheduled to take place at the beginning of the third quarter, Orascom said in early June. In April, Orascom Telecom's board approved a move to almost double its capital to 14 billion Egyptian pounds (US\$2.4 billion), from EGP7.5 billion, and to split the company into two entities--Orascom Telecom and Orascom Telecom Media and Technology. A number of disgruntled Orascom Telecom shareholders have filed a lawsuit against EFSA to halt the process. In March, shareholders of Russia's VimpelCom voted to clear its US\$6 billion deal to acquire the telecom assets of Egyptian billionaire Naguib Sawiris. The deal with Sawiris's Wind

Telecom SpA secures a more than 50% stake in Orascom Telecom and Italy's Wind Telecomunicazioni SpA. Orascom Telecom shares closed down 1.1% at EGP3.53 in Cairo. Egyptian cell phone users number 76.4 million while Egyptian landlines number 9.2 million, according to the Ministry of Communications and Information Technology (MCIT). Vodafone Egypt held the most subscribers, with 33.8 million, with Mobinil following closely with 30.3 million. Etisalat services 12.2 million mobile users. Last September, MCIT said it was studying issuing a fourth mobile operator license in 2013. The other three operators said granting a fourth license is not economically feasible, saying the market has already reached saturation. Telecom Egypt, which operates most landline telephones, is facing challenges as its subscriptions decline relative to mobile phones, despite the price of landline service being the lowest ever. According to official figures, the number of mobile phone subscriptions in Egypt rose by 30% in June compared with the same month a year earlier to 76.43 million. In June 2010, Egypt's three mobile operators, Etisalat Egypt, MobiNil and Vodafone's Egyptian unit, had 58.972 million subscriptions. The regulator announced its plan to increase the length of the current mobile numbers from 10 to 11 digits from October 6, 2011. This change will take place within the framework of the regulator's plan to increase the digital capacity of the mobile numbers that was announced in 2010 as the length of the current mobile number will be increased by adding a fixed digit to every mobile operator. The regulator stated that the implementation of this decision will take place pursuant to the internationally acknowledged standards that maintain the stability of telecom market and guarantee the access of all subscribers to calls.

## Iraq

According to the regulator, Iraq's three mobile phone firms could face penalties after missing an August 31 deadline for listing their shares on the local bourse. Zain Iraq, Asiaccell and Korek have all said they are working toward placing their initial public offerings on the Iraq Stock Exchange (ISX) as required by Iraqi law under the 15-year, US\$1.25 billion operating licenses they secured in 2007. But all three companies have yet to change from limited to shareholding firms, a key requirement and the first main step towards going public on the local bourse. The mobile sector in Iraq has grown rapidly since the 2003 and is one of the few regional markets offering double-digit subscriber growth. According to the regulator there are now around 23 million mobile phone subscribers in the country. The regulator said previously it would consider fining the mobile phone operators if they failed to list by the set date. So far Asiaccell, an affiliate of Qatar Telecom, was the only firm that had started the process to become a shareholding company and would thus be considered with more leniency by the regulator.



## Jordan

With more than half of Internet users in Jordan also using social networking sites, the ICT Association of Jordan said. Websites like Facebook and Twitter can be used to extend public services to young people, who represent a large majority of social networking users. "Social networking sites can also be used to raise awareness among the younger generation on several issues," int@j CEO Abed Shamlawi said, referring to figures from [www.insightsmena.com](http://www.insightsmena.com), a website recently launched by Google. The figures indicate that 51% of Internet users in Jordan use social networking, compared to 64% cent in Saudi Arabia and about 82% in the UAE. Meanwhile, 48% of Internet users in Jordan use instant messaging, compared to 71% in Morocco, 68% in Saudi Arabia and 83% in the UAE, according to the website, which provides key trends on online behavior. Of those who use social networking sites in Jordan, 47% are women, who account for 44% of instant messaging users in the Kingdom, according to the website. "Social networking sites are very popular in Jordan and a majority of the users are young people. The government can use such sites to provide public services to the young in the fields of health and education," Shamlawi told *The Jordan Times*. The number of Internet users in Jordan is currently estimated at 2.8 million, and the figure is expected to reach three million by the end of 2011, he said. Shamlawi estimated the number of Twitter users in Jordan at 15,000, while according to [www.checkfacebook.com](http://www.checkfacebook.com) there are 1.855 million Facebook users in the country. "Applications for university admission for example can be done through social networking sites, especially Facebook. Nowadays, there are many teachers who have pages on Facebook where they interact with students and discuss educational issues," he noted. "The number of Internet users is on the rise as well as the use of social networking. This provides an effective platform to reach out to a broad segment of the society," Shamlawi pointed out. Founded in 2000 as an industry-support association for the Kingdom's ICT sector, int@j's membership includes more than 130 firms that have a vested interest in the ICT and ICT Enabled Services sectors, including software developers, hardware providers, telecommunications and data services, call centers, help desks and system integrators.

## Kuwait

The Ministry of Communications is planning to break the monopoly of some Internet service providers (ISPs) by issuing licenses to new companies according to the regulations of the. Sources revealed the ministry will also grant licenses to telephone companies to become major Internet service providers to their subscribers to reduce fees. When put into effect, the bill will allow private companies and corporations to obtain a license from the Ministry of Commerce and Industry to offer Internet services, subject to the approval of its communications counterpart, sources said. Ministries and other government institutions willing to provide members with Internet services in their work premises will also be granted

a license. The ministry reserves the right to closely monitor prices and services, while the licenses will be obtained for about KD 10,000 yearly. Violations of ministerial and administrative regulations on granting the license warrant fines ranging from KD 20,000 to KD 100,000 and the repeat offenders will face harsher penalties.

## Lebanon

The Telecommunications Ministry will introduce a new high-speed and cheaper Internet in Lebanon from October 1, the telecoms minister said. Internet speeds would increase and subscription prices in general would be cheaper. Monthly download caps would also be between two to five times greater than current levels. Internet speeds in Lebanon are some of the slowest in the world and the service is expensive compared to other countries. Lebanese mobile network operator Alfa, managed by Orascom Telecom, has announced the launch of its pilot 3G mobile service for 2,000 users, while the country's other state-owned cellco, MTC Touch, managed by Zain Group, is also reported to have begun a similar scheme, taking the number of pilot users to 4,000. The month-long pilot of W-CDMA/HSPA+ is scheduled to last until October 20, 2011 ahead of commercial launches hoped for by the end of that month. Alfa has put 250 3G base stations into service so far, covering an area extending from Beirut and Mount Lebanon up to the coast of Amchit. The operator conducted its first tests of 3.5G technology in April this year, including demos of video calling and high speed mobile web browsing. In May, rival MTC Touch held a live HSPA+ demo in Beirut. Telecoms Minister Nicholas Sehnaoui marked Lebanon's 3G debut last week at a ceremony to select 50 university students for the pilot. In June 2011 the Shura Council, suspended the powers of the Lebanese regulator, making the Ministry of Telecommunications (MoT) the sole body authorized to set new rules and guidelines for the sector. The MoT implied that the decision would prevent interference in the ministry's plans to ensure the launch of 3G mobile services. Lebanon's ADSL fixed broadband users are set to receive a long-awaited increase to download speeds on 1 October 2011, when the state-owned PSTN operator Ogero has scheduled the launch of a range of new internet packages which will reportedly raise speeds up to eight times faster at a cost 80% cheaper per 1Mbps than existing connections. At the start of July that after months of delays the government confirmed the availability of new international internet capacity via the India-Middle East-Western Europe (IMEWE) submarine cable, while announcing that a bill would be issued to formally dictate a reduction of internet access prices

## Morocco

Maroc Telecom, the largest company by capitalization listed on the bourse has seen gains and in mid July was up 3.4% for the year to date. The firm also was the most active listing in terms of transaction volume in the first half of the year at 17.3% of the total volume, followed by Attijarawafa Bank at 14.2% and real estate developer Addoha at 13.1%.

## Nepal

The regulator is gearing up for an auction of 2.3GHz and 3.3GHz spectrum for WiMAX-based technologies suitable for the provision of wireless broadband services. The regulator is reportedly poised to issue requests for proposals (RFPs) to operators interested in providing voice and high speed internet services even in remote areas of the mountain Kingdom. It is understood however, that the watchdog has already set aside 30MHz of spectrum to state-owned incumbent operator Nepal Telecom (NT) i.e. it will not have to compete for the frequencies following a recent decision by the Radio Frequency Policy Determination Committee. The regulator is now looking to assign WiMAX spectrum to an as yet unnamed private sector telco and to one of the country's internet service providers (ISPs) through an auction process. To that end, the government has set a fixed price of NPR800,000 (US\$11,050) per 5MHz of WiMAX spectrum. Although NT will not have to bid in the auction, it is understood it will be charged a fee for its frequencies. According to the provisions set by the frequency policy committee, an ISP will have to pay NPR300,000 per annum as a spectrum fee for WiMAX frequencies, while NT and the private sector telco will be charged NPR7 million per MHz per annum. National PTO Nepal Telecom has already invited tenders to roll out its WiMAX broadband services (in the 2.3GHz-2.4GHz band) and aims to cover every village development committee (VDC) with a minimum 256kbps (uplink/downlink) service. It will award separate contracts for its west and east networks shortly, with total capacity expected to be set at 100,000 subscribers. NT hopes to deliver quad-play services to end users with the west network spanning 1,923 VDCs and 24 municipalities. Nepal Telecom (NT) will have to face 'critical future', according to its Managing Director Vishwanath Goel. The company will have to face hard times ahead and its profit will reduce due to unsupportive laws like Public Procurement Act and tough competition among private telecom service providers. Speaking at the meeting of subcommittee of Public Accounts Committee (PAC) under Legislature Parliament, Goel said that Nepal Telecom was not enjoying level playing field since it is not free to take decision independently. "Private telecom service providers can take decision immediately," he said, "but Nepal Telecom (NT) has to wait months from government's agency to execute any new plan." Ncell injected Rs 7 billion to expand its infrastructure whereas Nepal Telecom (NT) has spent only Rs 4.5 billion, according to him. Technology is changing in rapidly but Nepal Telecom is not able to bring cutting edge technology due to unnecessary and lengthy official procedure. The telecom has some 20 tender notices under process but it takes unnecessarily time to get approval from the government, he said. He also informed that Nepal Telecom has a total of Rs 34 billion in deposits. "But the company is in a situation where it cannot spend the amount for its expansion." The Ministry of Information and Communications (MoIC) in Nepal has apparently dismissed proposals to create a 'unified licensing' regime in the

country which would have allowed existing telcos to offer a full range of telecoms services on a single license. Officials within the MoIC dismissed the plan which they considered 'vague', and asked the regulator to come up with something better. Under the unified licensing scheme the regulator had envisaged operators paying a fee of NPR295 million (US\$3.84 million) to upgrade their licenses to offer all telecoms services – including international long-distance (ILD) calls. The regulator may now look at a revised plan under which any telco willing to pay the NPR295 million fees plus a NPR20 billion renewal fee after ten years, would be allowed to operate as a fully integrated telecom services provider.

## Oman

The regulator drafted its Code of Practice on Tariff Transparency and interested parties have until 30 days from the date of publication to respond. The draft was published on the regulator website on August 21. The regulator is inviting comments from telecommunication licensees and other interested parties, including consumers and the general public. After the responses have been analyzed, the document will undergo legal vetting before it is finally issued at the beginning of 2012. Regulator is looking to set up a minimum standard for tariff information that will be accurate, up to date, easily understood, easily accessible and comparable. According to the draft code, the information must include a service description, prices (including any discount structures), service suspension and termination provisions (including any early termination charges), and service availability and eligibility requirements. Any additional or subscription charges, in addition to monthly rental or other subscription fees, should be clearly indicated and published along with the tariff details. The regulator invited all telecom licensees and other interested parties, including consumers and the general public, to look at the draft document of its Code of Practice on Tariff Transparency and to give their comments within 30 days from its publication date. The Sultanate's telecom regulator has made this move in a bid to maintain transparency and protect consumers' interests. Newly released statistical data shows that in the telecommunication landscape of the Sultanate, the resellers (MVNO) of mobile phone services and mobile broadband registered the maximum growth of 9.7% and 19% respectively during January-June 2011 from December 2010. The number of subscribers to fixed post-paid telephone services increased by 2.7% during January-June 2011 to 205,970 from 200,467. The subscribers of fixed pre-paid telephone (Sahl) fell by 26.2% to 27,694 in June 2011 from 37,523 in December. The public pay phone registered zero growth and remained at 6,801 in June 2011 and December 2010. The post paid mobile phone subscribers increased by 0.9% to 417, 828 in June 2011 from 414, 011 in December 2011. The pre-paid mobile phones subscribers decreased by 0.7% to 4, 160, 764 in June 2011 from 414, 011 by December 2010. It is important to note that the telecom infrastructure operators (Oman Mobile and Nawras)

registered a negative growth of two per cent from 3, 732, 963 subscribers in December 2010 to 3, 656, 853 subscribers in June 2011. The growth in subscriber levels was cornered by resellers (MVNO) who cornered a growth of 9.7% from 459, 159 in December 2010 to 503, 911 subscribers by June 2011. This show the resellers has reaped substantial business gains. Total mobile subscribers (post and pre-paid) decreased by 0.6% from 4,606, 133 in December 2010 to 4,578,592 in June 2011, according to the Government's Monthly Statistical Bulletin (July 2011). Similarly, the number of Internet subscribers (Dial-up) decreased by 31.9% from 21, 278 in December 2010 to 14, 485 by June 2011. The total fixed broadband subscriber (DSL, Wireless and WiMAX) increased from 52,630 in December 2010 to 60,654 in June 2011. Total Internet subscribers as a whole registered a 1.7% growth from 73,908 in December 2010 to 75, 139 in June 2011. Mobile broadband subscribers increased by 19% from 1,847, 223 to 2, 197, 771 by June 2011. Regulator invited all telecom licensees and other interested parties, including consumers and the general public, to look at the draft document of its Code of Practice on Tariff Transparency and to give their comments within 30 days from its publication date. The Sultanate's telecom regulator has made this move in a bid to maintain transparency and protect consumers' interests.

## Pakistan

The Ministry of Information Technology has forwarded different scenarios for auction of license for 3G technologies to Prime Minister including bidding competition among existing cellular players and open competition among interested parties. The existing cellular companies are sternly opposing any move to allow other international parties to participate in the auctioning process of 3G license. Khan said that there were different views on interpretation of agreement with Etisalat in case of selling PTCL as it did not bind the government as regards 3G license. The auction of 3G, would boost investments and provide job opportunities to 20,000 to 25,000 people. The government and the companies had agreed to resolve the issue on recovery of outstanding dues, to the tune of Rs 20 billion, through 'out of court settlement' but differences still existed on the number of installments. The regulator has been instructed by the government to come up with the installment plan to resolve this as both sides have so far agreed to move ahead on this subject by adopting out of court settlement. Telcos have given a different timeframe with 25 to 60 installments. There are different claims on dues, ranging from Rs20 billion to Rs85 billion. When the secretary was asked about performance of cellular companies, he conceded that their performance was not up to the desired mark. He said acknowledged that some companies were cheating consumers by charging money even if the caller could not talk because of networking problems. "There is no need to bring a new law to check these trends," he said and added that regulator would be asked to devise a strategy in this regard. Pak Datacom Ltd (PDL), a data network operator in Pakistan, and O3B

Networks have signed a multi-year, multi-million dollar joint venture agreement seeking Pak Datacom as O3B's supplier of services into the Pakistani market. The agreement will provide national and international satellite capacity across Pakistan. Pakistan's government has reportedly formed another working group tasked with resolving the ongoing dispute over the sale of third-generation mobile concessions. The local press source noted that the cabinet committee put together by the prime minister – with the task of examining both the auction of 3G spectrum and the Share Purchase Agreement (SPA) of incumbent Pakistan Telecommunication Company Limited (PTCL) – met at the end of last week, following which it was decided that a subcommittee should be formed to study the 3G matter in more depth. It is understood that there are continued differences of opinion between the state and PTCL, the latter of which claims that as part of the government's share sale, it was agreed that the country could not sell any new spectrum concessions for at least seven years after that date (i.e. March 2013). For its part, the state has argued that 3G licenses are not new concessions per se, but instead an extension of existing services, while it also has a different interpretation of the time limit for the sale of licenses agreed as part of the PTCL stake sale. Pakistan, which has seen a boom in its promising telecom sector and information technology services in recent years, recorded around 46.2% growth of subscribers and is placed fourth on the ranking list with Serbia on the top. Globally, only Thailand and Belarus had greater percentage expansion than Pakistan, apart from top-rated Serbia during the period. Pakistan's digital growth prospects have begun to look brighter lately. According to official data issued by Pakistan Telecommunication Company Limited (PTCL), the closest South Asian country to Pakistan on the list of top countries is Sri Lanka at the 11th spot with its broadband penetration growing in 30s while India lags at the 14th place in terms of broadband growth. Besides having a large bilingual (English and Urdu) internet conversant population, Pakistan's software companies have carved a niche internationally in recent years. According to figures, the Information Technology exports were around US\$ 1.4 billion in the last financial year. Experts say the IT industry, which adds thousands of skilled workers every year, has the potential to hit a multi-billion export target within next five to ten years. Additionally, mobile phone and wireless internet usage are also expanding rapidly. Pursuing an aggressive policy of expansion, which has made the service available to a wide spectrum of customers from high end corporate sector to low income, rural areas, PTCL has played the role of catalyst in the exponential growth in the broadband sector that has enabled Pakistan to be ranked amongst the top countries with highest growth rate in broadband internet. Chairman Pakistan Telecommunication Authority Dr. Mohammed Yaseen proposed to the government that Rs80 billion funds generated under the Universal Service Fund (USF) should be utilized for broadband proliferation by declaring the whole country under-served in internet usage. Addressing a seminar on "What's ahead in telecommunication for

Pakistan”, Chairman PTA said the proliferation of broadband in the country remains low with only 1.4 million subscribers even though there are 109 million mobile phone users in the country. This step would allow massive development of broadband services in the urban areas. USF is generated through the profit earned by the telecom companies and is utilized for deploying telecom infrastructure in the under-served areas. To date the government has processed projects worth only Rs17 billion for underserved areas. Chairman PTA noted that the content and applications were driving the ICT industry and telecom sector was becoming more of a platform for these services. He said that the cellular companies could be big losers if they did not change their business plans and focused on providing more value added services through content and applications. He observed that their revenue from phone calls would drastically reduce in the coming years as already they were advertising long distance calls to United States for as low as Rs10 per 30 minutes. He said 10 to 15 million smart phones were connected to local telecom networks that could be used for mobile banking, commerce and other value added services. He said the frequency harmonization is extremely important to achieve benefits of rapid development in wireless technologies, making it imperative for administrations to allow changes in frequency assignments for the greater good. Several countries have formulated a spectrum of re-framing policy framework and to promote wireless broadband dissemination in rural areas. He said new solutions could create new revenue streams for companies.

## Qatar

The regulator issued two new class licenses, one for the resale of telecommunications services, and the second for owning and operating private telecommunications networks within a closed user group. Both licenses went into effect upon publishing. The class licensing system is part of the liberalization process of Qatar’s telecommunications market. The class license for resale of telecommunications services enables hotels, public call offices, Internet cafes and wireless Internet zones, to resell telecommunications services on a non-exclusive basis. The parties can resell all types of telecommunications services from any Individual Public Telecommunications Operator licensed in Qatar; however they must notify the regulator prior to offering such services. The class license for owning and operating a private telecommunications network allows corporations to operate a private, closed user group network for internal, non-commercial purposes. Utilization of this class license does not require advance notice to regulator. Class licensing is an important component of regulator’s telecommunications licensing regime. Class licenses simplify licensing requirements for individuals and organizations seeking to do business in Qatar’s telecommunications market, while assuring a sustainable and secure telecommunications sector. Users of both class licenses must comply with the terms and conditions specified in the licenses. The final class licenses were developed following a public consultation in 2009.

## Saudi Arabia

As per data released by the telecom regulator the total number of mobile subscriptions grew to around 54.8 million by the end of H1 2011, with the penetration rate standing at 195%. Prepaid subscription constituted the majority (87%) of all mobile subscriptions, which is in line with the trend in other countries around the world. Fixed telephone lines stood at 4.49 million by end of H1 2011, of which around 3.37 million or 75% were residential lines. This represents a household teledensity of around 68.9%. The population teledensity is around 16% or 160 telephone lines for every 1000 inhabitants. The number of internet users grew from around 1 million in 2001 to an estimated 12.5 million at the end of H1 2011. Internet penetration increased to 44% of the population by the end of H1 2011.

## Sri Lanka

As per data published by Sri Lanka’s Central Bank the country’s wireline subscriber base (based on copper PSTN connections, excluding fixed-wireless services) is continuing to rise, reaching 918,000 at end-June 2011, up by 4.4% year-on-year. CDMA-based fixed-wireless services claimed 2.68 million subscribers at the same date, up 2.5% year-on-year, giving an overall fixed line total of 3.60 million which, according to end-2010 data represents just a 0.5% increase in six months. The cellular mobile customers in Sri Lanka increased by 5.3% in the same six-month period to 18 million. Meanwhile, according to the Central Bank’s data, internet subscribers in the country shot up by 166% in a year to reach 692,000 at the end of June 2011. National incumbent PSTN operator Sri Lanka Telecom this week announced the launch of a new phase of a major fiber-optic connectivity project for the island’s northern areas. United Telecom Limited (UTL) has agreed to pay up 50% of its outstanding royalties to the regulator. In an appearance before the country’s Public Accounts Committee (PAC), a spokesperson for UTL said the firm was looking to resolve the ongoing dispute over outstanding fees, and is hopeful that the government will now look to kick-start a process of negotiation so both sides can reach agreement on a ‘reasonable’ royalty. Despite the olive branch being offered, the regulator remains adamant that it requires payment in full and has reiterated its threat to cancel the telco’s license if it fails to pay up in full. Its chairman is quoted as saying that the UTL is left with no options but to pay royalty dues or to get stay order from the court to operate its service. The regulator official says he is not able to consider the telco’s appeal given that the Appellate Committee – under the Ministry of Information and Communications – rejected its appeal to waive outstanding royalty worth NPR896 million (US\$11.9 million).

## Sudan

The regulator invited bids to install and operate, the Mobile Number Portability Clearing System. The dead line for submission has been extended to October 2, 2011.

## Tunisia

According to the available figures Tunisie Telecom's revenues were US\$ 541.6 MTD in 2010 in mobile telephony, 270 MT in fixed telephony and 270 MTD in inter-connection. Overall revenues were 1.3 billion TD against 1.4 billion TD expected. Initial projections of the operator for 2011 which was hit by strikes and social conflicts in TT, already expect a decline of 8 to 10%. As to its market share in mobile telephony, it would be, according to some union sources, only 40% of the market, against 49% in 2010.

## Turkey

According to a latest research report, the telecom market in Turkey continues to grow healthily. Fixed voice showed declining revenue, due to fixed to mobile substitution. Fixed line penetration continued to decline to 21.4% I 1H11, while mobile penetration rose to 86.5% in 1H11. The strongest growth is seen in mobile data, as 3G service has been offered since July 2009. Mobile broadband penetration reached 5.1% of the population in 1H11 (Vs the EU at 6.1% in July 2010). Fixed broadband Internet is still growing at a double digit rate, thanks to low broadband penetration of 9.9% of the population in 1H11 (Vs the EU at 25.6% in July 2010). xDSL represented 60.7% of broadband Internet connection in 1H11, falling significantly from 83.5% in 1H10. This was due to incredibly strong growth of mobile broadband connections, which in the mean time represented 32.8% of broadband connections in 1H11. TNet, a subsidiary of Turk Telekom, had an 86.4% share in the fixed broadband market followed by the Superonline, a subsidiary of Turkcell, with a 4.25% share in 1H11. Mobile penetration in Turkey might seem low at 86.5% in 1H11. Mobile penetration fell in 2009 due to cancellation of multiple SIM cards after the introduction of mobile number portability I November 2008 and unlimited all direction tariffs in February 2009. The pay TV penetration in Turkey is still low at around 26.4% or 4.9 million subscribers in 1H11, providing a lot of growth potential. The market split was 73% satellite TV, 26% cable TV and less than 1% IPTV Turk Telekom just launched IPTV in February 2011. The market leader in pay TV is Digiturk with 47.4 share, or 2.3 million subscribers in 1H11, followed by D-Smart (Dogan TV), with 25.8% share, or 1.3 million subscribers. State owned cable company Turksat had a 24.5% share or 1.2 million subscribers in 1H11.

## United Arab Emirates

The UAE telecommunication sector is witnessing rapid changes and is very active in addressing the need for change, according to a top official of Gigaset Communications. The Munich-based views the Dubai and the UAE as a very important market, chief executive officer for Middle East, Africa and India Shahzad Ahmed told in an interview. "The telecom industry in the region is witnessing rapid changes especially with the Telecommunications Regulatory Authority (TRA) liberalizing VoIP technology and adding new fixed-line licenses," he said. Gigaset has been very focused in its business plan, according to

Ahmed, and this has resulted in over 30% growth in 2010 amid the financial crunch and unrest in the region. The same figure is also the company's target this year. Gigaset has been in the region for over six years and has a market share of over 30% in key countries like Saudi Arabia, the UAE, Kuwait and Egypt. Its reach has grown to almost 60% in the last two years, exceeding expectations, which Ahmed attributes to the effectiveness of its strategies and product quality. The telecom regulator received applications from the UAE's two telecoms operators Etisalat and Du to reduce their call and data tariffs. A joint committee comprising regulator members and representatives from the two operators is currently discussing the issue. The proposals follow several recent surveys that indicated a demand for lower call rates, particularly for international calls. Etisalat and du are finalizing and fine tuning their systems for launch of the mobile number portability service, which will take place soon, according to the regulator. All the preparations for the start of the service are ongoing and the service will be launched soon. Although the exact date of the launch was not revealed, the spokesperson said there would be no further delays. Asked if services providers will be open to fix the charges for the portability facility, the spokesperson said: "The regulator is required to approve all prices of both operators, for the vast majority of telecommunication services. We do not intervene in the setting of retail prices except in circumstances where we deem prices to be anticompetitive." In April, regulator said Mobile Number Portability will be launched in the third quarter in to allow for several performance and functionality enhancements to the number portability system. The service is expected to benefit the consumers as the two operators will compete to hold onto their customers. Mohammad Nasser Al Ganem, TRA's Director-General, had said earlier: "It will stimulate competition between the two operators because operators will try to hold onto their customers." According to regulator, the active mobile subscription as of June was 11,179,767, of which 1,284,539 are post paid and 9,895,228 are pre-paid users. It was reported last week that Etisalat and du had submitted applications to the regulator to reduce telecom tariff in the country. Regulator released Quarter 2 of 2011 Broadband analysis report on the quality of fixed Broadband retail services offered by licensed Internet Services Providers (ISPs) in the Kingdom of Bahrain. The telecommunications sector provides consumers with tools to improve their lifestyle and develop their communities thus contributing to an overall economic development in the Kingdom. This drives regulator to constantly ensure that consumers in Bahrain enjoy the best of technology and services available in the world. On the occasion of publishing the 2011 Q2 Report on the quality of broadband services, TRA's Consumer Affairs Manager Ms. Ghada Al Qassab said "Via this regular report regulator aims at providing consumers with qualitative data relating to the observed quality of service provided by ISPs to allow consumers to make informed decision when choosing a service provider. This initiative is part of TRA's efforts to enhance the awareness of the consumers in Bahrain."

Regulator follows a standard measurement methodology for all ISPs which have the advantage to show trends over a specific audited period as well as record variations during a 24h period, where one set of measurements is taken every hour, 24 times a day. In this report, results for a given hour is then determined by taking an average of the performance in that particular hour over a three month period; for example, all results recorded between 8:00 and 9:00 for an ISP are recorded on a daily basis, averaged and reported as an observation on the graph that provides the average performance of this specific time period over three months. Etisalat and du are finalizing and fine tuning their systems for launch of the mobile number portability service, which will take place soon. According to the regulator they have conducted intensive testing of the service in cooperation with Etisalat and du and are currently finalizing and fine tuning the systems. All the preparations for the start of the service are ongoing and the service will be launched soon. Although the exact date of the launch was not revealed, the spokesperson said there would be no further delays. Asked if services providers will be open to fix the charges for the portability facility, the spokesperson said: "The regulator is required to approve all prices of both operators, for the vast majority of telecommunication services.

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are post paid and 9,895,228 are pre-paid users. According to the regulator the number of mobile phone users in the UAE shrank by more than 59,000 in July and most of the decline was in pre-paid GSM subscribers. At the end of July, the total number of GSM subscribers in Etisalat and Du, the UAE's two mobile phone service providers, stood at 11.1 million, down by nearly 59,000 from their number at the end of June. The report showed pre-paid users declined by nearly 72,000 to 9.82 million at the end of July while fixed-bill subscribers increased by nearly 12,600 to peak at around 1.297 million. Land line subscribers also increased by 7,584 to nearly 1.752 million at the end of July. The decline in GSM users depressed the mobile phone penetration rate in the UAE to 193.8% at the end of July from 195.8% at the end of June. The report showed internet users declined to around 1.335 million at the end of July from 1.34 million at the end of June. The report said the decline was a result of a sharp rise in the number of users of smart phones, which have largely mushroomed in the UAE in the past two years. Etisalat launched its LTE network upgrade. For the LTE network, more than 700 base stations have been renovated and equipped to provide 4G services in the country. Etisalat is planning up to 1,000 fully operational base stations by the end of this year. Mobile phone number portability between the United Arab Emirates' two telecom companies will not take place in the third-quarter as previously announced, the Director General of the Telecommunications Regulatory Authority said. Mobile number portability will be postponed because the operators are not technically ready. The regulator will make an announcement soon, after the operators finish all technical trials.

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## An Overview of Spectrum Updates and Regulations

An impartial and well balance reallocation of spectrum ensures that the society reaps the full social and economic benefits of the digital dividend spectrum that is being made available as a result of digital switch over, globally. The digital dividend spectrum bands offer an excellent balance between transmission capacity and distance coverage. A number of spectrum related updates were reviewed in the month of September and October. In the SAMENA region, Pakistan set up a committee for resolving a debate over the possible auction of third generation (3G) licenses in the near future. The committee will devise a strategy about the introduction of 3G service in the country. Pakistan, in the South Asian region is lagging behind in terms of deploying 3G technology. It appears that operators are uncertain to adopt 3G due to huge investments required for spectrum and are of the view that the spectrum be offered at reduced cost so that much of the expense is directed towards quick rollouts.

Australia auctions off 700 MHz and 2.5 GHz spectrum bands, with Vodafone making a deal for 1800 MHz spectrum for deploying Long Term Evolution (LTE) technology. India has identified four new spectrum bands for telecom services. Similarly, the Kenyan government invited the operators and vendors for partnership in LTE. This model (Open Access LTE Scheme) via public-private partnership (PPP) could prove to be of significance in deploying LTE countrywide with the spectrum being allocated with a view to creating a Universal Access System (UAS) for all of the country's telecoms operators. This model, once implemented successfully keeping in view the interest of industry stake holders most importantly the operators community could serve as revolutionary step in the quick roll out of 4G technologies such as LTE, in the regional markets in general, and Africa in particular. UK approves the use of white space spectrum and UKE opens consultation on spectrum refarming. The main purpose has

been to divide the available spectrum for creating more infrastructure based competition between owners of spectrum and also for the maximum usage of LTE at its fullest. With the availability of spectrum and infrastructure it encourages more competition between the players.

## Regional Updates

Pakistan Telecommunication Authority (PTA) plans to make 35 MHz available 3G spectrum available in an auction but the process is delayed due to certain issues. Pakistan had previously planned to offer 3G licenses in 2007 but due to the uncertain ROI, the operators' community resisted the move to 3G. The slower subscriber growth and shrinking ARPU has led to the network investment costs to dwindle while the government has long been exploring ways including a universal service fund for the improvement of nation's low broadband penetration. The government has constituted a committee to resolve the dispute over the planned auction of spectrum for third generation (3G) networks. The committee examined the possible auction of 3G spectrum as well the pros and cons of the auction of 3G spectrum.

## Global Issues

Australia has settled on a new format for its 700 MHz and 2.5 GHz spectrum auctions which will allow bids for packages deals. The digital switchover has progressed nicely and is set to be completed by the end of 2013. The 700 MHz and 2.5 GHz bands are highly lucrative as telecommunications operators increasingly look to roll out LTE networks to meet wireless data download demands. A combination of the 700 MHz and 2.5 GHz might be favored by telcos interested in a wireless data network since 700 MHz is good for coverage while the 2.5 GHz is good for capacity. The 1800 MHz spectrum is central to Australian telcos initial forays into LTE enabling the telcos to use the new technology until alternate spectrum in the 700 MHz band is parceled out by the Australian Communications and Media Authority (ACMA) at auction next year. Vodafone has now made spectrum swap arrangements with the rail authorities so that it has contiguous blocks of spectrum that can be used to provide LTE services. The 1800 MHz spectrum that Vodafone has secured from the rail companies in Adelaide, Melbourne and Sydney will be combined with spectrum it already has in these cities as well as that within Brisbane and Perth. The spectrum expires in 2013 and 2015.

India has identified frequency bands between 698 to 806 MHz, 2300 to 2400 MHz, 2500 to 2690 MHz and 3400 to 3600 MHz for use of IMT technologies. The 698 to 806 MHz band also known as 700 MHz band is under dispute between DoT and Information and Broadcasting Ministry. The particular band (700 MHz) is considered to be very efficient and could fetch the government revenues more than it goes through auctioning of 3G spectrum last year. Through an internal committee of DoT has recommended the need for a compensation fund for migrating services.

India's spectrum licensing process is set for a significant overhaul with the country's Telecom Commission approving a number of policy changes. The new legislation would limit the amount of spectrum that one operator can hold as well as standardize the charge of licenses. The Indian regulator TRAI had reportedly proposed an incremental reduction of revenue share to 6 percent across the next four years which would have saved the telecom sector around INR6500 crore over the next three years. These new restrictions can be problematic for major operators such as Bharti, Idea Cellular and Vodafone Essar as their current licenses will avail them of just 6.2 MHz of 2G spectrum when renewed despite the fact that they hold as much as 10 MHz in several circles. This excess spectrum will revert back to the regulator.

The Kenyan government had recently announced that the 4G spectrum will not be given to the incumbent operators; instead it will be utilized using a public-private partnership (PPP) scheme. Apparently, this model is planned for 4G spectrum allocation just to avoid the problems that were faced at the time when 3G licenses were issued. The partnership initiative calls for LTE deployment via an open access model where small and big operators will be able to use infrastructure without worrying spectrum fees and high capital expenditures during roll out. The public private partnership is likely to address the thorny issue of spectrum LTE is optimized for 2.6 GHz but that spectrum is currently being used by the military. The 2.6 GHz will mostly be utilized in urban areas; it will be more economical to deploy 700 MHz in rural areas just like what Europe has done. The 700 MHz spectrum is expected to be available after the country migrates to digital broadcasting even though there is no indication whether the spectrum released by TV stations will be auctioned or allocated to community broadband projects in rural areas.

The Polish Ministry of Infrastructure concluded an agreement with the Russian Ministry of Telecommunications and Mass Communications on optimal usage of frequencies in the 790-862 MHz range by both countries. The agreement contains technical parameters and administrative procedures for coordinating the frequencies in this range which enables Poland to use the 800 MHz band. The Ofcom (UK) has approved the use of white space spectrum for services such as broadband Internet and M2M. The regulator predicts that the white space technology will come to market by 2013. The frequencies are comparable to the amount of spectrum currently available for 3G services and therefore have the potential for ease of the stain on mobile networks.

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## TOP TECHNOLOGY UPDATES

### T-Mobile Launches New Unlimited 4G Prepaid Plan

T-Mobile has launched a new service plan that would provide unlimited access to its 4G data network for US\$30 a month. This plan would be available through Walmart stores and online portals. Walmart said that it would offer more T-Mobile phones. Currently it has four phones in the lineup, which are the LG GS170, Samsung SGH-T249, Samsung Dart T499, and Nokia 1616. It would expand its offering to six phones, which would include its first 4G prepaid handset. T-Mobile's 4G HSPA+ network can go up to 42 Mbps but it is slower than Verizon and AT&T's 4G LTE networks. T-Mobile is said to be working to improve its data network up to 84 Mbps.

### Nextel Launches 3G Pilot

Chilean cellco Nextel has entered the pilot phase of its 3G network rollout, with the service now available to existing customers. Nextel's W-CDMA network is being deployed by Nokia Siemens Networks (NSN) and is currently only available in the cities where Nextel also offers its push-to-talk (PTT) service: Antofagasta, Calama, Valparaiso, Vina del Mar, San Antonio, Rancagua, Santiago and Concepcion. The pilot plan allows existing customers to use up to 1GB of data on a monthly basis. Nextel plans for 3G services to be made fully available in the first quarter of 2012. Nextel was the last to begin deploying a 3G network. According to TeleGeography's GlobalComms Database, Entel PCS was the first to utilize the platform, with its network becoming commercially available at the end of 2006. Movistar rolled out its own network in December 2007, with Claro following suit a month later.



## Telefonica Germany Test LTE in BMW Cars

Telefonica Germany and BMW will be testing how the new LTE mobile communication technology works in cars. It enables high-speed internet, including video streaming and music, even while driving on the road. The specialists at BMW Group Research and Technology have been conducting live tests to evaluate LTE in vehicles. They have also been developing applications such as automatic traffic sign recognition via a server connection. These activities are made possible in the current research prototype through LTE by Telefonica Germany. The BMW Group is testing LTE in the city of Munich and surrounding rural areas, studying parameters such as transmission characteristics, latency times and data speeds in real time. Initial results show top download values of up to 70 megabits per second as well as average data rates of 23 megabits per second within the city.

## Vodafone CR upgrades 3G network to HSPA+ technology

Vodafone Czech Republic has upgraded the capacity and speed of its mobile data network. It has upgraded five 3G transmitters to HSPA+ technology, supporting download speeds of up to 21.6 Mbps (practical speed ranges from 12 to 18 Mbps). It plans to upgrade 50 percent of its 3G network to HSPA+ technology by March 2012. The current HSDPA technology of the 3G network allows for theoretical speeds of up to 14.4 Mbps.

## MTS to Roll out LTE in 2012

MTS will roll out fourth-generation LTE mobile services in Manitoba in 2012. MTS said its LTE network will feature average user speeds up to five times faster than MTS's current HSPA+ wireless network.

MTS president said, "With the deployment of LTE technology, MTS expects to continue to offer the best overall wireless data experience in the most locations within Manitoba." The company said that when it launches the first phase of its new network, customers with LTE devices can access to MTS's network with roaming capabilities where LTE is not yet available.

## Russian Telecom Giants Announce LTE Partnership

Russian's major mobile operators VimpelCom and MTS collaborate to share LTE network. Both operators are members of a pre-existing venture with Russian vendor Scartel which also includes MegaFon and broadband provider Rostelecom. With a joint investment of approximately RUB2 billion (US\$62.4 million), the deployment takes after similar LTE-sharing arrangements in Scandinavia. VimpelCom spokeswoman said that an infrastructure partnership is a reasonable approach which carries an evident bargain, the network is being built faster, and costs are being optimized substantially, while there is more money left to invest into the core product.

## Sprint to Launch 4G LTE Network in Early 2012

Sprint Nextel will launch its own 4G LTE network early next year. The LTE rollout is part of the company's broader Network Vision plan. With the costs already accounted for in its prior forecast, the LTE network won't require any additional capital investment. Sprint's 4G LTE network is providing the nation's third largest carrier with an additional selling point beyond attractive pricing plans and an unlimited data offering. By employing LTE technology, it will be able to tap into a larger pool of vendors already racing to build 4G devices and equipment at a lower price. The additional network will also allow Sprint to offload some of its 3G data traffic onto 4G, relieving a growing burden.

## Everything Everywhere to Implement 3G Network Sharing

Everything Everywhere the joint venture in the UK between France Telecom's Orange and Deutsche Telekom's T-Mobile has revealed that from next week mobile customers of Orange will be able to use T-Mobile's 3G network, and vice versa. 2G network sharing between Orange and T-Mobile was initiated in September 2010, but until now 3G users could only use the original host network. The 3G sharing will be switched on region by region over the next few months.

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## NATIONAL BROADBAND NETWORK DEVELOPMENT: FOR AN EFFECTIVE PUBLIC PRIVATE PARTNERSHIP

15 years after its creation, Devoteam Group has become the number one consultancy company in information technologies in Europe, Middle East and North Africa, specializing in information systems infrastructures. Combining consulting & technology solutions offers enables Devoteam to provide its customers with independent advice and effective solutions that meet their strategic objectives (IT performance and optimization) in complementary areas: network, systems infrastructure, security and e-business applications.

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Many agree that high speed broadband networks are important and vital for the economic development. Indeed, over the last decade, a number of developed and emergent economies have drawn up broadband strategies to bridge the gap in supply in this domain. However, despite many reforms in the telecommunications sector conducted in a majority of countries and despite the impressive development of the Telco industry, much of the developed countries' population don't have access to ultra-fast broadband infrastructure and few of the population in the emergent countries have access to high speed broadband services.

Development of fiber infrastructure to the home/ building has encountered major barriers such as the level of investment required-in particular in remote areas-, competition of legacy technologies (mostly DSL), lack of national coordination, and low government incentives. Regulators and governments, realizing the importance of "enabling" the development of such infrastructures on the long term, are today considering different tools to promote the delivery of broadband infrastructure, enhance customer's experience with multimedia and next generation services, and increase the penetration rate.

*“Development of fiber infrastructure to the home/building has encountered major barriers”*

Devoteam, through recent engagements for similar developments, has identified three main approaches which are outlined below:

- Infrastructure sharing regulations and incentives: After the introduction and promotion of facility-based competition and strong push towards investment in infrastructure, regulators are considering more service-based competition and fostering passive and / or active infrastructure sharing strategies. The resulting decrease of capital and operating expenditures will help service providers to focus on investing in innovative services bringing higher benefit to customers. The infrastructure sharing policy should be established through a clear framework taking into account fair competition, protection of existing or planned investments, wholesale model licensing (e.g. utilities companies) and lowering barriers for new entrants (end-users providers). Although beneficial for new entrants, the infrastructure sharing has proved so far that in most of the cases it does not go beyond sharing the passive infrastructure and does not lead to the expected benefits for the market (higher competition and penetration rate, better coverage) and end-users (lower prices, better customer's experience).

*“Many agree that high speed broadband networks are important and vital for the economic development”*

- 2. Pure Public funding, where the government gets involved directly in building and operating a new access infrastructure. Today, and especially with the current economic downturn, the delivery of a national broadband network is costly, cash intensive, and takes time (variable depending on the country geography). Moreover, having a Government funded /operated infrastructure company competing with the private sector would false the competition and prevent the private facility-based companies from obtaining a reasonable return on investment.

- 3. Public-Private-Partnership: The cost and long timeframe of new government-funded deployment is the main reason why governments and regulators in both developed and developing countries are seeking a close cooperation with the private sector for the delivery of such challenging strategy. By extending rather than duplicating the existing infrastructure, such PPP collaboration will decrease the deployment timeframe and focus will be directed into areas the private sector cannot primarily address.

The PPP is a combination of both infrastructure sharing and government funding. Such partnership will significantly reduce the investment expenditure for both the communication services providers and the government. In general, the PPP is expected to encourage all facility-based owners to take part of partnership. Therefore, incorporating part or all of the existing infrastructure (Telecom incumbent and utilities companies), will ensure an efficient delivery of the broadband strategy (The Singapore and Australia initiatives are good examples for a best practice PPP in telecommunications). Also, PPP projects will help introducing at a large scale the service-based competition which drives the telecommunications sector development especially in the emergent markets, thus improve customers' experience and ensure affordable access to the community.

*“The infrastructure sharing policy should be established through a clear framework”*

Possible approaches and models to build the PPP project have to be carefully assessed by the regulator, including financial, governance, and stakeholders contribution aspects –in particular with regards to the implication of the incumbent in such project. Also, potential concerns with PPP such as market distortion, anti-competition should be addressed at the earliest stage of the PPP project definition. Particular regulatory provisions should be introduced to ensure the open and fair access nature of the network.



## DIGITAL ENTERTAINMENT INDUSTRY

The digital entertainment industry is advancing at lightning speed. As technology gets more complex, it creates new roles within the value chain. Today, there exists a need for a vital link between telecommunication companies, media content producers, and end consumers.

This is what we do at Intigral. We provide clients with services ranging from content aggregation and creation, to enhancing and repurposing, monitoring, censorship, delivery, and promotion. We simply bridge the gap between technology, content and the digital audiences.



Intigral was established in 2009 as an end-to-end solution provider focused on delivering digital media content services to regional telecommunication operators. We offer a one-stop shop for the region's operators, easing their transition into the digital media space. As a joint venture between Saudi Telecom Company (STC), All Asia Networks (ASTRO), and Saudi Research and Marketing Group (SRMG), our aim is to enhance the digital experience of consumers irrespective of their access channels, be it mobile, IPTV or web. Our approach to digital media content focuses on integration, information and intelligence. Additionally, we help content owners and our Telco partners create additional revenue streams by leveraging advertising opportunities created within the content and Telco services framework. We market, manage and monetize the digital advertising inventory across mobile, web, and IPTV platforms.

We have a fact-based understanding of consumer segments and content genres. We also understand our clients and their market requirements. That is why we are well-placed to select, acquire, tailor, manage and help deliver content to suit the tastes and the growing and evolving needs of consumers.

## Mobile

In the hypercompetitive mobile industry, digital content is a key differentiator for operators. We offer our operator partners the entire spectrum of content and managed services, helping them maximize loyalty and revenue opportunities.

*“The web is the key storefront for an operator, allowing it to showcase and market its brand, maintain customer relationship and engagement”*

In addition to the locally-relevant content aggregated from hundreds of global and local content suppliers and service providers, we also design and develop interactive and enriched content. Our state-of-the-art platform allows for content ingestion, management and delivery across the different mobile channels, including SMS, MMS, WAP, STK, and more.

- In recent months, Intigral finalized the design and development of several interactive and unique mobile applications. Some of these applications include:
  - SULT'N is a state-of-the art music portal that serves as a one stop destination to enjoy unlimited entertainment from a diverse collection of songs, music videos and imagery from all the genres and all the regional and international music labels. The portal contains the best of International, Bollywood, Asian, and Arabic hits.
  - STC Games Club is a unique gaming portal which offers users UNLIMITED FREE DOWNLOADS for a limited period of time, after which all the downloaded games will prompt the user to subscribe. The portal features an interesting “all you can eat” download & game play model on valid subscriptions. At present, 280 games are offered and will shortly be adding many more including big labels such as EA and Gameloft.
  - SayidatyMagazine is an application that allows users to download the magazine and read it from cover to cover on their phone anytime and anywhere. “Sayidaty” can be downloaded on any smart phone with no restrictions, allowing easy access to all. The magazine includes the latest news, humanitarian stories, exciting investigations and features as well as a beauty guide and cooking recipes.

- Asraris an application targeted towards women and provides a wide-range of content such as: beauty tips; fashion; home decoration; food recipes and dietary advice. Asrar is a powerful tool that provides ladies with their 'own private corner' where they are able to access travel news, entertainment services and content, travel advice as well as interactive services directly from their mobile phones and updated on weekly basis. Asrar allows users to share content with friends, or push it to their facebook and other social network accounts.

## IPTV

Internet Protocol Television (IPTV) is an essential service that allows operators to monetize and exploit their investments in broadband infrastructure. Our expertise in this arena allows us to manage, develop, and deliver IPTV services to our operator partners.

Our IPTV team acquires relevant content and ingests, censors, edits and delivers it ready for end-user consumption. At the core of our IPTV service is a state-of-the-art Head-End/Broadcast Center in Dubai Studio City (DSC), currently delivering 180 broadcast IPTV channels, 30 of which are High Definition, and a full Video-On-Demand (VOD) library to the Saudi Telecom Company, for their Invision service.

We also provide managed TV services that include operational strategy, Graphical User Interface management, product management and marketing, and other services critical to the success of the operator's TV offering.

Intigral enabled Saudi Telecom Company (STC) to launch the first advanced interactive TV service in the Kingdom of Saudi Arabia (Invision), based on Intigral's IPTV capabilities. The service delivers video content like live TV, Catch-Up TV and Video-on-Demand over the Internet Protocol to the TV screens of STC's broadband customers. The Catch-Up service allows customers to view live TV channels up to one full week after they've been aired. The offering includes Video-on-Demand (VOD) which features a vast selection of Hollywood, Bollywood, and Arabic blockbusters, movies and series as well as documentaries, religious titles, and sports events.

Intigral was, and remains, the sole provider of Cinema Video on Demand in KSA. Taking into consideration that the Kingdom does not have movie theaters, Intigral manages to release titles prior to, or on the day of, their theatrical release in the GCC. Titles included Harry Brown, Universal Soldiers 3, The American, as well as Arabic production such as Zahaimer with Adel Imam.

Intigral recently signed deals with major Hollywood studios which included Warner, Paramount and Disney. The new titles from those studios have been added to the library of our Video on Demand transactional services, some of which are Thor, Transformers, Cars 2 and Real Steel. Customers of the Invision service may access the wide and growing inventory of titles on-demand. More contracts will be signed with local and international studios from around the world to further expand the library.

## Web

In today's world, successful companies market, sell, and deliver their products digitally and manage post-sales interactions, including customer care, through an online interface. We specialize in designing, developing and managing these online destinations for our operator partners.

The web is the key storefront for an operator, allowing it to showcase and market its brand, maintain customer relationship and engagement, while increasing loyalty and maximizing profits. We turn operator online destinations into profit centers and customer retention tools, by monetizing the online business with premium content, the sale of advertising inventory, and the bundling and cross-selling of premium services and core operator products.

## Mobile Advertising

As an end-to-end digital media provider to telecom companies through mobile, IPTV and web, Intigral is a true believer in the power of mobile advertising. We foresee 2012 as the year where mobile advertising will take its share in the marketing mix in the region. The company is currently working with its Telco partners to enable their mobile advertising service and help them in entering this relatively new business.

*“The web is the key storefront for an operator, allowing it to showcase and market its brand, maintain customer relationship”*

Intigral realizes the opportunity which is presented through the rapidly growing association and convergence between telecom and media, which has led operators to become increasingly more involved in activities that were previously carried out by advertisers and media companies. The company has gathered a set of unique skills that helps its partners and clients in monetizing two key types of mobile inventory generated by telecom operators: “permission-based opt-in” inventory and “content-based” inventory. Support is given to the clients

*“2012 as the year where mobile advertising will take its share in the marketing mix in the region”*

in running carefully planned Opt-in programs to enroll end-users to the mobile advertising service, which is done by running segmentation exercises and lifestyle mapping to be able to provide advertisers with a clear breakdown of customers.

In order to enable telecom operators to run their mobile advertising service, Intigral works closely with key mobile advertising technology vendors which can help those operators in marketing different inventory across multiple platforms.



## The Future of Digital Media

Utilizing our state of the art technology platforms, our converged multi-screen focus, and our strong and growing relationships with the top local, regional, and global content suppliers, we are the partner of choice for operators seeking to leverage digital content in their local markets.



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## AVOIDING THE SLIPPERY SLOPE: HOW GCC TELECOM OPERATORS CAN IMPROVE PROFITABILITY

Even though the worst of the global economic slowdown has passed, telecom operators worldwide face a raft of challenges that could impede their path to pre-recessionary growth levels. With sky-high penetration levels in traditional businesses, operators no longer can assume steady revenue gains. Competition is heating up – not only from other telecom operators but also from new entrants including Apple, Google, Skype, and Facebook. Meanwhile, consumers are becoming more demanding and sophisticated, expecting operators to provide an “all-you-can-consume” Internet model via ubiquitous bandwidth and the latest services at low flat rates.

*“Competition is heating up – not only from other telecom operators but also from new entrants including Apple, Google, Skype, and Facebook”*

These trends are starting to emerge in the GCC region. In fact, GCC operators’ average returns on assets have dropped by nearly half over the past five years to approximately 8 percent per year, and appear to be heading toward 5 percent.

With revenue clearly under pressure and competition rising, the key to maintaining healthy margins, and thus the key to sustaining customer experience and product innovation, is to look to the cost side. Global operators have taken several steps to rein in costs: European incumbent operators have succeeded in bringing down operating expenditure as a percentage of revenue by about 2 percent per year. They also have kept capital spending in check through smarter procurement, scale efficiencies, group synergies, and focused deployment of fixed and mobile investments.

Admittedly, finding more costs to eliminate is no mean feat. Most operators have already cut all they thought they could. To take cost savings to the next level requires expertise and deep commitment. By rigorously identifying and applying relevant cost measures, telecom operators can position themselves to weather the ongoing industry challenges and extract benefits from leaner operations. There are three waves of cost optimization that operators need to consider: incremental efficiency, process reengineering, and value chain restructuring. Deploying the

right mix of these initiatives will enable operators to create—or sustain—value, outperform their competitors, and secure their sustainability in chosen markets.

These three waves are run concurrently and iteratively, to strike the needed balance between the choice of activities along the value chain, the processes in place, and the operational efficiency and capital expenditure allocation. The application of the three waves is a virtuous circle that allows operators to innovate continuously and expand their offerings while avoiding a buildup of layers of inefficient spending.

The first wave, incremental efficiency, involves making informed decisions to reduce costs by shedding excessive expenditures through better budget allocation and use of resources in ongoing activities. Initiatives include changes in incentives and the structure of resellers' commissions, inventory management, CapEx prioritization, headcount management, and vendor and contract management. This usually yields rapid cost reduction. The results can be impressive; incremental efficiency initiatives can decrease operating costs by as much as 5 percent over a period of about three to 12 months.

The second wave, process re-engineering, is about changing the ways in which operators do their work and maximizing cross-functional efficiencies. Compared to Wave 1, in which operators optimize spending in light of ongoing activities, Wave 2 challenges the way operators run their business and exposes new cost inefficiencies to address.

The second wave considers systemic costs—costs that are incurred by the company's processes and policies. By re-engineering policies, processes and procedures, Wave 2 initiatives typically generate savings within a year to 18 months through the implementation of lean operations. Implementation requires transformational activities of selected functions, tackling cross-functional opportunities. Such measures will transform the way that some functions operate, and foster cross-functional opportunities. One key example involves focusing on sourcing, an initiative that can enable savings as much as 11 to 16 percent of supplier contracts. Operators with a global footprint can derive even greater sourcing savings by leveraging group synergies.

In the third wave, operators can benefit from restructuring their value chain. Whereas previous waves change how operators go about their business, this wave fundamentally changes what it is that they do by reconsidering structural and inherent costs—those generated by the company's chosen business models and its overall scope of operations. Operators will be primed to derive the most value possible from their investments in the operations they choose to keep, while divesting those activities that do not truly reflect the business's strengths or long-term goals.

There are many initiatives that operators can tackle in Wave 3. The most pressing areas today include capabilities-driven outsourcing and the integration of operators' technology and market-facing functions for both fixed and mobile operations. Operators also can tackle network sharing models, in which operators share their infrastructure to better monetize their assets, and virtual network enabling partnerships that allow operators to develop innovative solutions with their chosen partners. They also can form relationships with resellers focused on specific market segments.

Telecom operators throughout the GCC region generally have sustained strong results in recent years, but they are not immune to the global threats that are exerting pressure on the sector's profitability and shareholder returns. With sky-high penetration rates, the advent of increased competition, and the growing sophistication of consumers who are demanding more, GCC operators are beginning to feel the strains that have slowed to a crawl the industry's growth in other regions of the world.

*Telecom operators throughout the GCC region generally have sustained strong results in recent years*

So far, regional operators only have focused on short-term and limited cost optimization efforts in order to rein in costs. The benefit of implementing encompassing cost optimization initiatives is promising. GCC telecom operators should act now – before markets fully saturate and further fragment – and implement the initiatives that will allow them both to streamline their operations and position themselves for future growth.

**Hilal Halaoui**

Partner

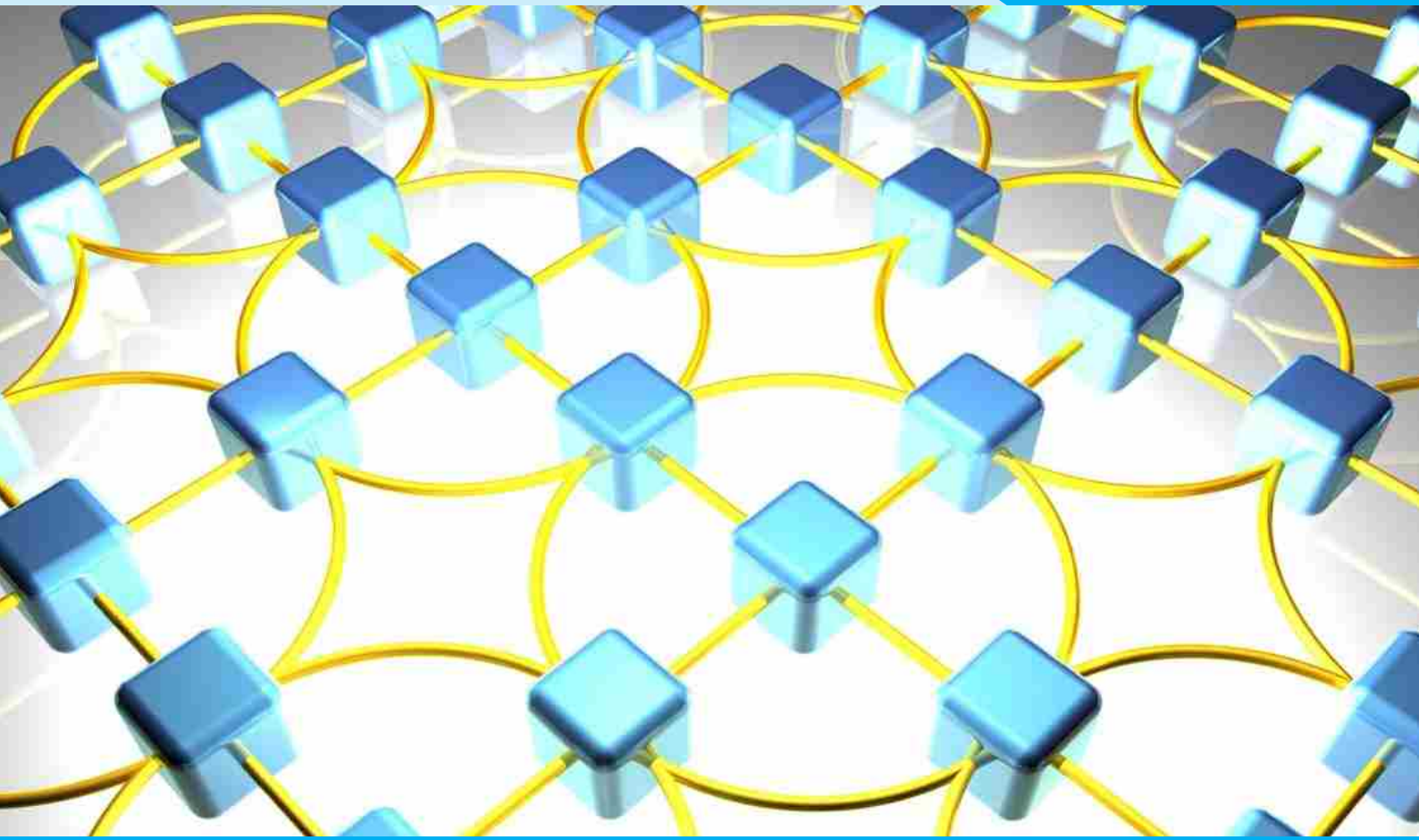
**Chady Smayra**

Principal

**Lancelot Sursock**

Senior Associate

Booz&Co.



## NETWORK SHARING CHALLENGES AND POSSIBLE STEPS TOWARDS SOLUTIONS

These days' operators are facing new challenges with coming days, whether it's Sustainability of internet model, infrastructure sharing or initiating a step towards partnership with other entities which might be measured as their competitor.

With any partnership or cooperation, there should be a clear vision and perspective as to how the two parties are going to collaborate with each other and what they aim to achieve. This may come out evident but with network sharing there is a factual hazard that the cultural mindset of both groups will have a tendency towards their competitive situations, undermining the joint nature leading to achieve a collaborative vision and understanding on the overall benefits. Usually, it is not the people who are involved directly but even a large group of stakeholders, for instance the finance group, sales and marketing or any other people that need to be discussed with and get them involved into the overall approach. Management alignment and sponsorship is therefore critical.

With the onset of 4G networks, these essential deployment issues will be further complicated by the lack of sites, tough environmental conditions and challenging geographic terrain, and growing competition. In view of these

*With the onset of 4G networks, these essential deployment issues will be further complicated by the lack of sites, tough environmental conditions and challenging geographic terrain, and growing competition*

challenges, operators have to come up with new business models such as network sharing strategies for it will help reduce the financial risks, quickly rollout advanced networks, and offer the communication services to public at remote areas thus overcoming the digital divide. Infrastructure sharing offers a number of potential benefits to the operators along with several other benefits to the environment and the overall telecoms landscape.

The cost savings resulting from infrastructure sharing could be passed on to the bottom of the pyramid, resulting in a better and more satisfied user experience and growth in terms of market share.

*“Today, infrastructure sharing for telcos is considered to be one of the “hot issue” both in terms of regulatory compliance and business requirement”*

Today, infrastructure sharing for telcos is considered to be one of the “hot issue” both in terms of regulatory compliance and business requirement. With the emergence of different type of infrastructure sharing models considering currently available technology and the future requirements, operators are planning to re orient their business models and devise new strategies to maximize revenues which in turn will lead to increased profit. This is because the significance of both CAPEX and OPEX optimization has increased particularly with declining trends in average revenues.

Network sharing Program complications and risks need to be managed carefully. Like any other big, complex program, or complicated changes in the program are going to possibly increase the costs significantly. Key essentials need to be evaluated early and risks alleviated within the program design. These include the formation of an objective reference network map, network architecture and design criteria, transmission strategy, landlord negotiation, lease termination costs and capacity of existing sites to be shared, including planning permission. The IT systems are required to direct shared operations should be stabilized before the sharing starts and work transparently across both groups.

The challenge for operators who are interested in network sharing, is how to capitalize on the financial benefits while advising the right technical solution and reducing the impact on end users and competitive advantage. This is a very complicated balance to attain which could be assisted by inviting third party partners to invest.

The increase in popularity of mobile internet and smartphones has had a huge affect on people who use mobile devices. On the other hand, the affect on the networks of rising traffic has been even bigger. The financial side of network sharing becomes radically enhanced when new coverage and capacity is shared with network consolidation and transformation, with possible CAPEX savings of almost 35%. Though, the complication of a sharing program raises the risk of not actually accomplishing these benefits.

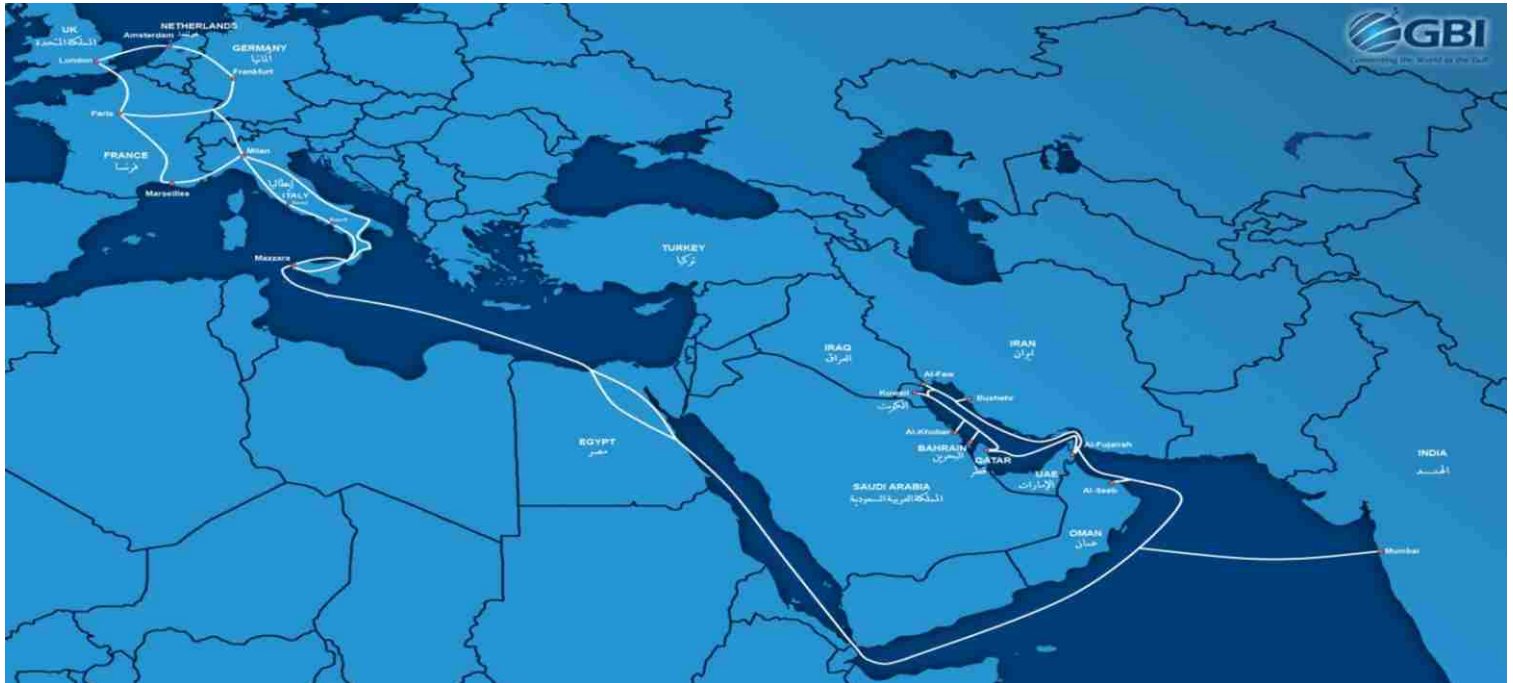
When there is an intention to develop a shared environment with a competitor. Firstly, creating a complicated set of business assessment from two independent operator decision-making teams to a combined technical and engineering team will not present the best possible case for sharing – and may carry intrinsic risk in implementation. Secondly, not administering the competitive strains between two operators, which both groups desire to independently manage their network and the joint network sharing teams, will address the mocking view and the potential risk of failure.

*“The financial side of network sharing becomes radically enhanced when new coverage and capacity is shared with network consolidation and transformation, with possible CAPEX savings of almost 35%”*

Network sharing is a complicated and exceptional undertaking, mainly if consolidation of on hand coverage takes place. Big scale network consolidation is very unusual from a roll-out program, and requires further capital and expertise that do not on average can be found in an operator. Access to these resources and skills must be a primary contemplation in creating any execution plan because learning from the mistakes of others can be very pricey.

**Bocar A. BA.**  
President  
SAMENA Telecommunications Council

## CONNECTING THE WORLD TO THE GULF



Gulf Bridge International (GBI) is the Middle East's first privately owned submarine cable operator. The GBI Cable System (GBICS) utilizes the latest subsea fiber cable technology to connect Bahrain, Iran, Iraq, the Kingdom of Saudi Arabia, Kuwait, Oman, Qatar and the UAE to each other and provides onward connectivity to Europe, Africa and Asia.

GBI's mission is to be the carriers' carrier of choice and to facilitate communications, be it voice, data, internet or video – which will enable the region to grow both socially and economically. An effective communications infrastructure and comprehensive connectivity are both essential and integral to creating and sustaining a successful and dynamic region.

GBICS connects the countries of the Gulf region, via a core ring, which can re-route the traffic thereby increasing resilience. With a design capacity of up to 10 terabits on certain cable sections, GBICS has the capability to meet the rapid growth in demand that has been forecast for traffic originating and terminating in the Gulf.

### CONTACT US

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Or visit our web site: [www.gbiinc.com](http://www.gbiinc.com)



## SATELLITE NEWS

### **Inmarsat Selects Hughes to Develop New BGAN M2M Terminal**

Inmarsat has selected Hughes Network Systems to develop a new machine-to-machine (M2M) terminal for its BGAN service. Hughes, will develop the new 9502 BGAN M2M terminal by building on its successful 9201-M2M platform. The BGAN M2M service will offer an end-to-end IP data capability for real-time applications including smart metering, SCADA, monitoring and other infrastructure telemetry solutions. Planned for launch in Q1 2012, Inmarsat will target the low-cost M2M service at the utilities, oil & gas, and retail banking markets. "Hughes is proud to be selected by Inmarsat to develop the new 9502 BGAN M2M terminal, building on our successful 9201-M2M product," said vice president and GM Hughes.

### **China Launches French-Made Telecom Satellite**

China has launched a French-made telecom satellite into orbit, marking it the first time the country has sent to space a satellite built by a European operator. Chinese rocket carrier Long March-III2 launched the W3C telecom satellite that would provide television, radio, broadband, video and internet services. The launch from the Xichang Satellite Launch Centre marked the first time for China to cooperate with a European satellite operator since the signing of a Sino-French satellite launch agreement in 2008, state news agency Xinhua reported. The satellite was built by Thales Alenia Space, a French satellite manufacturer, and is owned by Eutelsat, a leading provider of satellite communication services.

## Yahsat signs partnership agreement with Thales

Al Yah Satellite Communications Company (Yahsat) announced that it has signed Memorandum of Understanding (MoU) with DSEI Thales, a global technology provider, for the Defence & Security markets. The new agreement allows Yahsat to offer highly secure satellite communications to military forces and government agencies, through Yahsat's Y1A satellite resource, while Thales will provide its associated ground segment secure solutions. The agreement also supports Yahsat's mandate to become one of the first commercial satellite communication services providers to military forces on the Ka band, the optimum communications band for critical and confidential government and military wideband communications.

## Pakistan's Communication Satellite PAKSAT-IR to Focus on Commercial Ops

Pakistan's communication satellite PAKSAT-IR was launched successfully that will focus on commercial operations including programme on aiding socio-economic development, agriculture, forestry and vigilance of military insurgency. According to the Strategic Technology Resources (STR) CEO, This is the Land Management programme using satellite imagery and GIS geographic information system, similar in purpose to a data management system designed to handle large volumes of spatial data derived from a variety of different sources to develop computer base and holding records. satellite PAKSAT-IR will also help to provide education, healthcare to kids in remote areas.

## ICG Announced Limited Time Upgrade

International Communications Group (ICG) has announced a limited time offer featuring special pricing incentives as part of a trade-in upgrade program for owners and operators of business aircraft with existing Satellite Communication Systems. Under the terms of its Up-Link promotion, which will run through the second quarter of 2012, customers will be able to trade in a pre-existing Satellite Communication system for either a US\$3,000 or US\$4,000 credit towards the purchase of an NxtLink Series ICS-120A or ICS-220A transceiver. According to the CEO of ICG, "This promotion to allow business aircraft operators to take full advantage to the recent endorsement by the Federal Aviation Administration (FAA) of the use of Iridium to meet Future Air Navigation System (FANS) communication requirements for Air Traffic Control as well as the emerging regulations for Flight Deck Datalink and Link 2000 operations. FANS over Iridium (FOI) provide both commercial and corporate aircraft with global navigational coverage including oceanic, polar and remote airspace".

## Thrane & Thrane Signs as Global Xpress Launch Manufacturer

Thrane & Thrane has signed an agreement to be a key launch manufacturer for Inmarsat's forthcoming Global Xpress™ service. The new Ka-band satellite internet service is expected to go live in 2013, offering download speeds of up to 50Mbps, with brand-new SAILOR terminals designed specifically for use with this revolutionary new maritime Ka-band service. Thrane & Thrane is uniquely positioned to offer high quality L-band/Ka-band combination packages in line with Inmarsat's expectations, as well as provide Global Xpress terminals to shipping companies and offshore operators that already understand and recognise the SAILOR design and build quality. "The higher data speeds and compact terminals mark Global Xpress as an important development in the world of maritime communications," said, vice-president of maritime business at Thrane & Thrane.

## ISTIL Telecom Ukraine to Invest \$50 m to Develop Satellite Xtra TV

ISTIL Telecom Ukraine, part of the ISTIL Group, is intending to invest US\$ 50 million to develop the paid satellite Xtra TV service. According to the company CEO, Xtra TV receives signals from the Amos satellite, which covers the whole territory of Ukraine. He also reported that the service would be offered throughout the country and in future company will also provide internet services via the satellite. The distinctive feature of Xtra TV, according to the company director, is the fact that a connection to the service does not require a long-term written agreement and the acquisition of satellite equipment. The service offers subscribers five thematic TV program packages. The cost of one package is UAH 29 per month (including VAT). The company has about 2,000 distributors and dealers.

## SELEX Elsag Awarded Contract to Enhance Alliance Satellite

SELEX Elsag, a Finmeccanica company, has been awarded a major turnkey contract to rationalise and upgrade NATO's satellite communication (satcom) systems and associated infrastructure. SELEX Elsag will design, build, test, commission and support the infrastructure and communications systems upgrades, which will offer high levels of operational readiness, and reduced manning requirements and through-life costs. This includes a major new building and satcom facility in Belgium. Existing multiple antenna satellite ground stations in Kester (Belgium) and Lughezzano (Italy), and single antenna facilities at Oglananasi (Turkey) and Atalanti (Greece) will be upgraded. This low-risk programme will provide an expandable capability with a 20-year operational lifespan. It will significantly enhance NATO's operational capability by improving space segment efficiency, improving operational security and interoperability.



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# ROAMING NEWS

## Asian Mobile Networks Launch Fixed Rate Voice and SMS for Roamers

Asian mobile networks has launched the region's first one rate roaming price plan for voice call minutes and SMS messages, offering customers up to 80% savings from prevailing roaming rates. Customers can choose to subscribe any of the three Bridge Voice SMS Roam price plans to suit their travel plan and communication needs when travelling in the Asia Pacific region. Airtel (India), AIS (Thailand), CSL (Hong Kong), CTM (Macau), Globe Telecom (Philippines), Maxis (Malaysia), SingTel Mobile (Singapore), SingTel Optus (Australia), SK Telecom (Korea), Taiwan Mobile (Taiwan) and Telkomsel (Indonesia) are the member operators in the eleven Bridge Alliance. Bridge Alliance offers a comprehensive suite of subscription plans and total solution for voice, SMS and data roaming to all customers.

## Free Roaming, High Broadband Speeds in New Telecom Policy

The new telecom policy in India will bring cheer to consumers with the government proposing to remove roaming charges for subscribers within the country. According to the new Telecom Policy, roaming charges will be done away with and users will be allowed to port their mobile numbers, keeping the same number, even while switching service areas. The new policy also proposed to accord the telecom industry the status of an infrastructure sector, which will help ease credit flow to companies for funding roll-out plans or expansion activities. Ministry will also increase rural tele-density from the current 35 percent to 60 percent by 2017 and completely covering rural areas by 2020. Furthermore, to increase the revenue and broadband penetration will be the key interest in the policy. The final telecom policy will be announced by December.

## Warid launched new international roaming service

Warid Telecom (PVT) Ltd has launched its new International roaming service 'Roam Info'. This short code based SMS service brings great convenience to International roamers by allowing them to receive detailed tariffs of any foreign mobile operator before they leave Pakistan. Simply sending an SMS to 4747 will provide Warid customers an insight on which operator to choose once they have landed in the country abroad. Warid International Roaming is distinguished for its quality services which users rate the best in Pakistan. It also offers in-flight roaming with Aero-mobile and On-Air.

## Orange and China Telecom Sign Roaming Deal on Services

Orange and China Telecom have signed a partnership agreement that allows users to access their respective networks. The agreement focuses on four main areas: IP-VPN cooperation, managed services, network resources cooperation and Wi-Fi roaming. Orange will allow China Telecom's subscribers to roam on to their Wi-Fi hotspots in Europe, while China Telecom will do the same for users from Orange that are visiting China and want to access the Internet. Orange is also opening up its IP-VPN network in Europe, Africa and the Middle East, allowing China Telecom to extend coverage for subsidiaries of Chinese multinational companies. In return, China Telecom has agreed to provide managed outsourced and field services to Orange's multinational customers in China.

## SMS Interconnection Rates May Drop Immediately

The Filipino National Telecommunications Commission (NTC) will release a memorandum circular that will bring down SMS interconnection rates significantly. The regulator is leaning towards bringing SMS interconnection rates down immediately, rather than over the earlier proposed three years, due to the impact to consumers. The regulator has yet to decide on how much the reduction will be. However, the reduction in voice interconnection rates is still set to occur over three years. The original proposal sought to drop the SMS interconnection rate to a maximum of PHP 0.25 (US\$ 0.00577), from the current PHP 0.35 (US\$0.00807), in the first year, to a maximum of PHP 0.20 (US\$0.00461) in the second year, and to a maximum of PHP 0.15 (US\$0.00346) in the third year. The new memorandum circular will also require operators to ensure that 99 percent of SMS messages are received within 30 seconds of sending. Meanwhile the proposal for voice interconnection rates seeks to set the ceiling at PHP 2 per minute in the first year, PHP 1.50 (US\$ 0.0346) per minute in the second year, and at PHP 1 (US\$ 0.0230) per minute in the third year.

## CRC to Drop Interconnection Rates

Communication Regulation Commission (CRC) Colombia has approved new measures that will improve competition in the wireless market. The provisions focus on regulating more closely the relationships between telcos. No mobile network operator will be allowed to block a device, meaning that customers can connect through any network. In addition the CRC will decrease interconnection rates for calls between operators from the current rate of COP98 (USD0.05) per minute to COP42 per minute by 2015, and investigate the possibility of reducing SMS interconnection rates from COP59 to a single figure by the same date. Furthermore, the customers will be allowed to view and compare the rates offered by different providers on a website by April 2012.

## Globe Telecom and PLDT Launched Interconnection Services in Zamboanga

Globe Telecom and the Philippine Long Distance Telephone Co. (PLDT) have launched their network interconnection in Zamboanga City in Mindanao. The local interconnection services will provide subscribers and business establishments with quality and more affordable telecommunication services. National Telecommunications Commission Commissioner Gamaliel Cordoba earlier said the commission expects the immediate implementation of Globe and PLDT local interconnection services to provide subscribers and business establishments with quality and more affordable telecommunication services. The NTC paved the way to complete interconnection between Globe Telecom and PLDT in Pampanga, Bulacan, Davao and now Zamboanga, with four more areas up for full activation before the end of the year. Zamboanga City is the first in Mindanao and the third in the country to complete the interconnection between Globe and PLDT.

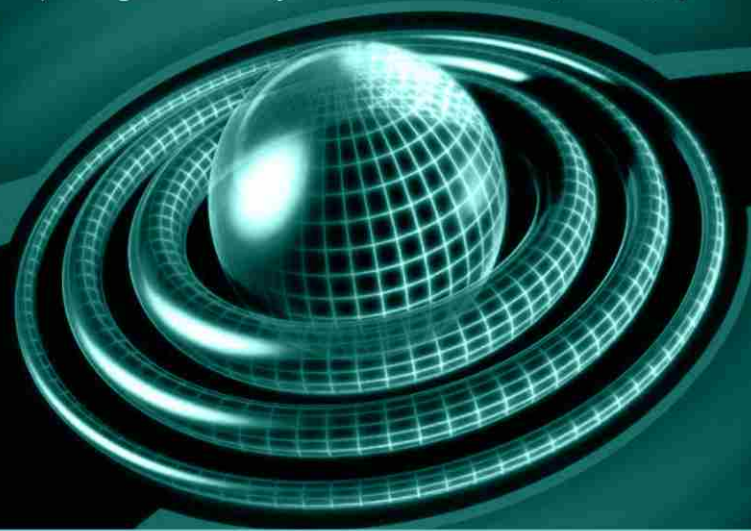
## Rwanda's Telecom Regulator Reduced the Interconnect Fee

The interconnection fee was reduced to Rf35.79 (US\$0.0605) per call from Rf40 (US\$0.0675) and it will continue to go down gradually. The regulator believes that by lowering the cost of interconnect; mobile operators could open up lower call rates across all networks. The existing operators MTN and Tigo welcomed the move to lower the interconnection fee. Currently, each operator charges Rf90 (US\$0.152027) per minute if its subscriber calls a competitor's network. This is extremely high compared to less than Rf20 (US\$0.0338) per minute on Tigo to Tigo and Rf1.5 (US\$0.00254) or less per second on MTN to MTN network. Telecom analysts believe that since the interconnection fee has gone down, the newly licensed mobile operator Airtel could enter the market with much lower call tariffs thus engineering a serious price war against the existing operators.

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