totaltelecom+
BUSINESS ANALYSIS FOR TELECOMS PROFESSIONALS JULY/AUGUST 2012

LEADER

WEATHERING THE STORM

Operators everywhere have challenges to overcome, but regulatory regimes are particularly difficult in Asia

Mary Lennighan
Editor
Total Telecom

In typically British fashion, as we go to press with the *summer* edition of Total Telecom+ torrential rain is beating against the office windows. The country faces the threat of severe flooding as the Met Office predicts a month's worth of rain will fall in one day in some places.

It's a far cry from the blue skies and brilliant sunshine that greeted us in Singapore a couple of weeks ago as we touched down for CommunicAsia 2012 and the Asia Communication Awards.

There was a clear message at those events for those of us representing the overseas press: don't treat Asia as a homogenous region,

The need to keep network costs down is a global phenomenon

but rather as a series of very different single markets.

One one level those differences are obvious. You only have to look at Singapore itself, where most of its smartphone-toting inhabitants also have access to fibre-optic broadband at home, and compare it with Thailand, where the state has yet to auction 3G spectrum, or India, where a 1.2 billion-plus population shares fewer than 14 million fixed broadband lines.

But there are parallels to be drawn between Asian markets, as our regional focus (page 10) shows. Telcos in a number of countries are battling with regulatory regimes that make it difficult for them to make the most of the considerable growth potential that still remains. Meanwhile, incumbent operators in East Asian markets in particular find themselves well-placed to capitalise on a relatively new cloud services opportunity.

Asian operators also share many of the same issues facing telcos worldwide. The need to keep network costs down is a "global phenomenon" says PT Indosat's Erry Nugroho. The Indonesian telco has begun sharing towers and is in talks with other operators about network-sharing, he says.

Heterogeneous networks have been touted as a cure-all for mobile operators looking to roll out LTE with good coverage in the most cost-efficient way. However, as our story on page 7 shows, there are many potential pitfalls that could push costs upwards if operators don't get their HetNet strategies right.

Operators are also focusing on the services running over those planned new networks, although there is still some debate over which areas offer the biggest revenue-generating potential. See page 17 for the latest opinions on mobile healthcare services. ■

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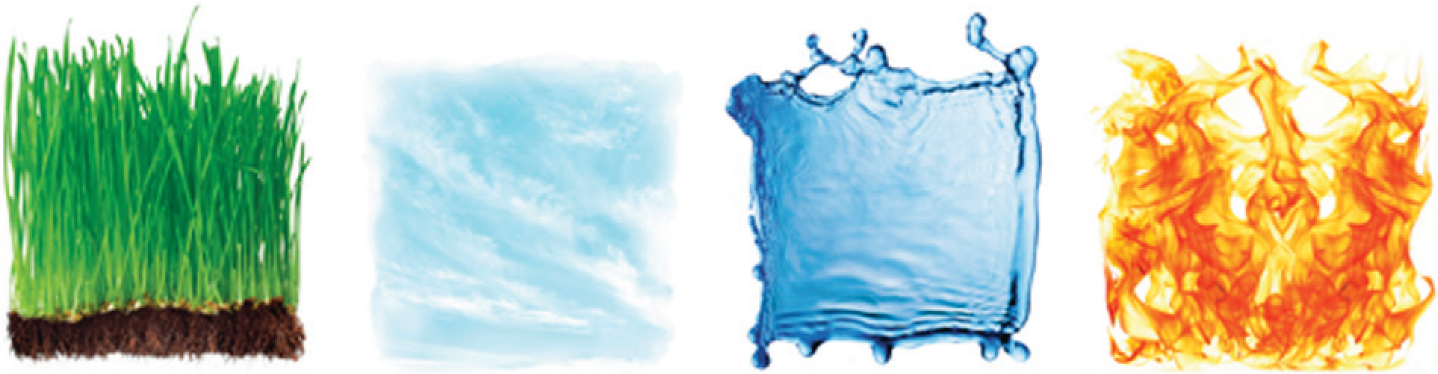


total telecom

A round-up of the major stories in telecoms in the past month, as reported in our daily news service **www.totaltele.com**

BUSINESS

America Movil eyes Austria

Mexico's America Movil announced a share purchase deal that will see it raise its stake in Telekom Austria to 23% by the end of the year. The telco also upped its stake in Netherlands-based KPN to 24.9% and has agreed to buy an additional 2.8%.

...and EU probes Orange deal

Meanwhile the European Commission opened an investigation into the planned €1.3 billion takeover of Orange Austria by Hutchison's local unit due to competition concerns.

Telefonica Digital revenue opp

Spain's Telefonica said it expects its digital services unit Telefonica Digital to contribute €5 billion to annual revenues by 2015.

EU OKs Voda's C&W bid

The European Union cleared Vodafone's planned £1.04 billion takeover of Cable & Wireless Worldwide. Earlier, C&W's largest shareholder Orbis Investment Management also backed the deal.

Qtel takes control

Qatar's Qtel is seeking regulatory approval to increase its stake in Kuwaiti operator Wataniya to 100% from 52.5% at present. It also announced plans to spend close to $1.5 billion to increase its stake in Iraqi operator Asiacell to 60% from 30%.

FT downs dividend

France Telecom announced it will reduce its dividend payments from 2013 as new competition in the French mobile market is likely to hit its profit margin.

Verizon buys telematics firm

Verizon Communications agreed to pay $612 million in cash for Hughes Telematics.

South Africa blocks KT deal

The South African government rejected Telkom SA's plan to sell a 20% stake to South Korea's KT Corp for around 268 billion rand ($330 million).

BCE buys data centre firm

Canadian telco BCE and three institutional investors agreed to pay C$1.1 billion for data centre operator Q9 Networks.

Hutch back in Israel

Hutchison Telecom agreed to pay $125 million for a 75% stake in Scailex, which holds 44.5% of Israeli mobile operator Partner Communications.

Voda eyes TelstraClear

Telstra confirmed it is holding talks with Vodafone NZ over the possible sale of its New Zealand business TelstraClear.

Moto acquires Psion

Motorola Solutions said it will pay £129.3 million for ruggedized device maker Psion.

Microsoft $1.2bn Yammer buy

Software giant Microsoft has agreed a US$1.2 billion deal to acquire business social networking provider Yammer in a move that will boost its cloud services portfolio.

MegaFon mothballs IPO

Russia's MegaFon postponed its IPO, scheduled for July, due to poor market conditions. It has yet to set a new date for the offering.

Bharti Softbank investment

Indo-Japanese joint venture Bharti Softbank acquired an unspecified stake in Y2CF Digital Media. The firms are working together to bring location-based service 'hoppr' to market.

Telefonica sells China stake

Telefonica agreed to sell a 4.56% stake in China Unicom to the latter's parent for €1.13 billion, reducing its holding to 5.01%.

CGI snaps up Logica

Canadian IT services firm CGI Group agreed to pay £1.7 billion for European rival Logica.

DoCoMo taps Tower

NTT DoCoMo plans to increase its stake in Tower Records Japan and turn the music retailer into a subsidiary in a bid to capture the synergies between the mobile and music markets.

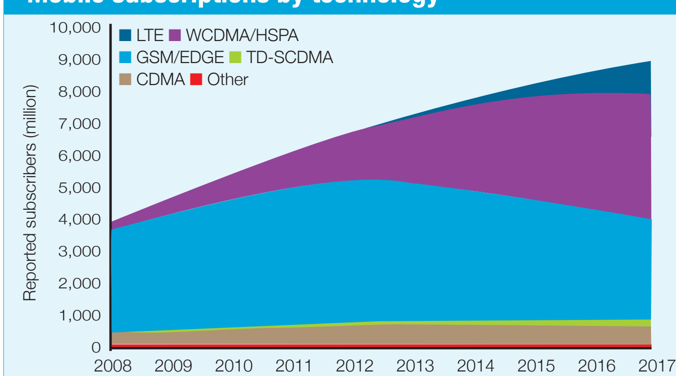
EU parliament rejects ACTA

The European parliament voted against anti-piracy pact the Anti-Counterfeiting Trade Agreement.

Globul on the block

Greece's OTE is reportedly considering selling Bulgarian unit Globul as part of a plan to refinance debt.

Mobile subscriptions by technology



Source: Ericsson

Ericsson in June predicted that global mobile traffic will grow 15-fold to 8,000 petabytes per month between 2011 and 2017, while mobile subscriptions will reach 9 billion. GSM/EDGE subscriptions will continue to claim the biggest share until near the end of the forecast period, boosted by the addition of new users in emerging markets buying the cheapest available mobile phones and packages. However, GSM/EDGE subscribers will decline after 2012 due to the migration to more advanced technologies in developed markets.

NETWORKS

BSNL contracts ZTE, ALU

Indian operator BSNL awarded mobile equipment contracts to Alcatel-Lucent and ZTE. The deals are estimated to be worth around $1 billion.

Voda, O2 merge UK networks

The UK units of Vodafone and Telefonica's O2 announced a network-sharing deal covering

2G and 3G networks, with a view to adding in LTE in future. The 50/50 joint venture will run the network of 18,500 masts.

Mexican deal follows

Telefonica also announced an agreement to share mobile infrastructure in Mexico with local rival Iusacell.

Ireland merger talks

Meanwhile, Vodafone is reportedly in talks with 3 Ireland over plans to merge their mobile network infrastructure.

Sprint closes iDEN network

US mobile operator Sprint said it will close down its iDEN network, the one remaining legacy from its Nextel acquisition, as soon as June 2013. The move follows an FCC ruling that allows it to use the spectrum for LTE services.

China Telecom MVNO launch

China Telecom launched its UK MVNO under the brand name CTExcelbiz and announced it will replicate the business in France in the second half of next year.

Femtocells march on

O2 and Orange in the UK and France's Bouygues Telecom announced femtocell rollouts, taking the number of deployments worldwide to 43.

Brazil awards 4G licences

The four main mobile network operators in Brazil won licences that will enable them to offer 4G services.

Shared data at Verizon

Verizon Wireless unveiled new tariff plans enabling users to share their data allowance between up to 10 devices. Packages start at $50 per month for 1 GB of data.

DT, MasterCard team up

Deutsche Telekom and MasterCard plan to launch a mobile payments platform. The first consumer rollout will take place in Poland this year.

Google sees 10bn mobile subs

Peter Fitzgerald, Google's UK director, predicted that global mobile phone subscriptions will grow to 10 billion by 2020, up from 5 billion today.

Microsoft tablet Surfaces

Software giant Microsoft has moved into mobile hardware, unveiling a family of tablets under the brand name Surface. The devices will run Windows 8.

...and Google follows suit

Google revealed its Nexus 7 tablet, developed with Asustek Computer, that will start shipping in mid-July.

Huawei's US LTE smartphone

MetroPCS started selling Huawei's Activa 4G for $149, making it the first US carrier to offer an LTE smartphone from the Chinese vendor.

Google TV expansion

Sony will start selling its Google TV-powered Internet Player in a number of markets outside the US, starting with the UK in July. Canada, Australia, France, Germany, the Netherlands, Brazil and Mexico will follow.

BT scores footy rights

UK incumbent BT won the right to show live English Premier League football matches for the first time, paying £738 million for 38 games starting in the 2013 season.

YouView launch looms

UK TV and video-on-demand service YouView–backed by the country's major free-to-air broadcasters and BT–will launch at the end of July.

PEOPLE

Tellabs CEO passes away

The industry extends sympathy to the family and friends of Tellabs CEO Robert Pullen who passed away in July at the age of 50. Acting president and CEO Daniel Kelly will continue to lead the company.

Reliance's new mobile CEO

Gurdeep Singh, formerly COO at Aircel, was appointed president and CEO of Reliance Communications' wireless division.

New M&A man at TA

Telekom Austria appointed Roland Haidner as its group director of mergers and acquisitions. Haidner, formerly CFO of the telco's Serbian unit VIP Mobile, replaces Erich Gnad who has retired.

Yahoo names revenue chief

Advertising executive Michael Barrett was named chief of revenue for Yahoo. He is responsible for advertising revenue and operations globally.

Facebook CTO quits

Bret Taylor will leave his post as Facebook CTO this summer to join a start-up. His role will be split between Mike Vernal and Cory Ondreijka, who will take over responsibility for platform and mobile efforts respectively.

Jobs go at Bouygues

Bouygues Telecom will cut 556 jobs, or 5.7% of its workforce, as a result of the price war in the French mobile market.

KPN new finance chief

Interim CFO at KPN Eric Hageman was appointed to the role on a permanent basis. He replaced Carla Smits-Nuesteling.

HUMM CHANGES HIS TUNE

T-Mobile USA announced the departure of CEO Philipp Humm just hours before Vodafone snapped him up to head up its newly-reorganised European operations. Vodafone Europe, previously led by Michel Combes, has been split in two: Humm takes over as chief executive of Vodafone's Northern & Central Europe business, which includes key markets like Germany and the UK, while Southern Europe will be under the care of Paolo Bertoluzzo, who takes on the role alongside his current position as CEO of Vodafone Italy. Humm joins Vodafone on 1 October, while Bertoluzzo's new job title is effective from 1 August. Combes, meanwhile, was due to leave Vodafone on 31 July to become CEO of French mobile operator SFR. However, the resignation of Jean-Bernard Levy as CEO of SFR's parent company Vivendi put paid to that plan and Combes will stay on at Vodafone for a time to help with the transition. Initially he will work with Bertoluzzo at Southern Europe, but will then move to run the Northern & Central Europe business before handing over the reins to Humm.

HETEROGENEOUS NETWORKS

JOINED-UP THINKING

HetNets represent a cost-effective solution to the mobile capacity crunch, but when it comes to real-world deployment, telcos are still finding their feet. **By Nick Wood**

Operators have got some important lessons to learn, and fast, if heterogeneous networks are to deliver on the promise of providing much-needed capacity without breaking the bank.

A typical "HetNet" consists of a macro layer of high-power base stations for wide area coverage, augmented by a denser deployment of lower-power, small cell infrastructure like picocells, femtocells and distributed antenna systems (DAS), and data offloading solutions like WiFi. These provide extra capacity and ease congestion on the macro layer in high-traffic areas. The whole requires careful signal interference management and planning to ensure end users have an optimal RAN connection and a seamless experience.

There is no shortage of vendors seeking to capitalise on HetNets. Ericsson, Alcatel-Lucent, Nokia Siemens Networks, Huawei and ZTE are all talking up their end-to-end solutions that promise to deliver truly self-organising networks with coordination between the different layers of the HetNet, while smaller, specialised players are addressing specific niches, from carrier-grade WiFi, to in-building closed access or outdoor public access small cells.

The widely-held view is that HetNets represent a cost-effective solution to the impending mobile capacity crunch.

Analysys Mason puts the cost of addressing the world's mobile network capacity requirements by 2016–which according to Cisco will be in the region of 10.8 exabytes (10.8 billion gigabytes) of data traffic per month–using only macro network infrastructure at a staggering $175 billion, compared to the $20 billion-$30 billion the industry spends today. However, if 50% of all mobile traffic is offloaded from the macro layer onto small cells and WiFi hotspots, the cost will come down to a more achievable $30 billion-$40 billion.

Operators have been busy bolstering their networks with small cells. In Japan, NTT DoCoMo is relying on femtocells to extend its Xi LTE service to areas not covered by its macro 4G infrastructure. "All three major [Japanese] operators have public access small cell plans," says Todd Mersch, director of product line management at network specialist Radisys. "We expect deployments to start there sometime near the end of 2012 or early 2013."

Meanwhile, South Korea's SK Telecom has installed dual-mode LTE and WiFi femtocells for residential and enterprise customers free of charge to enhance the performance of its LTE service. Mersch predicts that SKT and rival KT will have around 2,000 small cells between them this year. LG-U+ will enter the market in 2013 and is considering deploying up to 15,000 picocells. "From an addressable market perspective for OEMs [South Korea] could be approximately $140 million-$150 million in 2013," he says.

Informa Telecoms & Media predicts 91.9 million small cells will be in service globally by 2016. The vast majority will be user-managed femtocells, but small cell solutions will increasingly find their way into public spaces.

But small cells are not an easy fix for operators. They come with the same requirements as macro cell deployments–planning, site acquisition and rental, installation, backhaul, and power–but multiplied many times over. So while HetNets present an appealing solution in theory, in practice there is still much to learn if the industry is to keep a lid on costs.

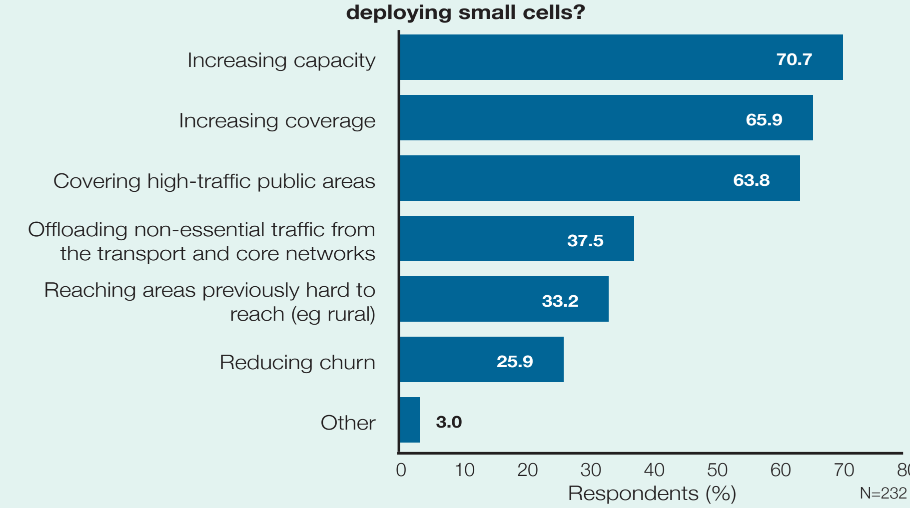
"The price [of HetNet deployment] needs to come down," says Robert Joyce, O2 UK's chief radio engineer. Yet he insists that "small cells are firmly on our roadmap".

Joyce explains that in highly-contended areas O2's network will require up to a 50-fold increase in capacity in the next five years, but the macro network can only achieve an eight-fold increase before it runs out of spectrum, something he predicts will happen around 2014. His forecast includes bandwidth O2 plans to acquire in the UK's forthcoming LTE and digital dividend spectrum auctions.

Using London as its test bed, O2 has undertaken a metropolitan small cell

Reasons for deploying small cells

What do you believe are the three most important reasons for deploying small cells?



Source: Informa Telecoms & Media Small Cell Survey 2012 deployment, comprised of open access picocells and WiFi hotspots. As part of this it installed small cells on nine of the 40 lamp posts lining one West London street, giving it 1 gigabit of network capacity per square kilometre, "which is around where we need to be by 2015", Joyce says.

However, the company's journey has been far from straightforward. "Never trust a council," Joyce warns. "Be very careful about any deal you make...it can affect timescales." Indeed, O2 had to submit separate planning applications for every piece of street furniture–around 400 applications in total.

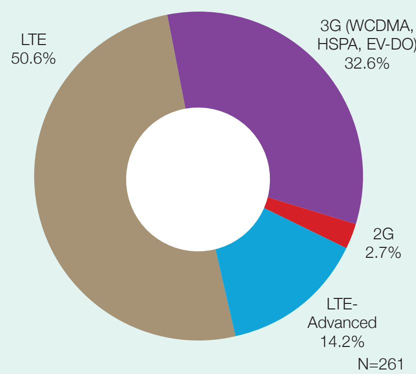
According to Alcatel-Lucent's senior product marketing manager David Swift, one of the key lessons here is not to establish agreements with local authorities that require planning applications for each site, but deals that "cover a chunk of real estate", even if it means the operator is left with some sites that are less than ideal in terms of footfall. "When you deploy a macro cell, a lot of planning goes into it because of the huge cost involved," he says. "With small cells the costs are smaller, so I can look overall at whether I get any benefit from deploying them... even if a few are in the wrong places."

An added complication for O2 was the fact that one company in London has permission to physically install equipment on lamp posts–the same company that hangs the Christmas lights every year–effectively giving it monopoly control. And once the equipment has been installed, it requires power and backhaul, each of which comes with its own headaches.

"The power supply on a [London] lamp post is un-metered," Joyce explains, meaning O2 had to liaise with utility providers to install electricity meters so it can pay for its energy consumption. Setting the correct power output is also important to ensure the signal propagates far enough but without interfering with other cells. Between two and 10 watts is "what we'd need," Joyce says.

Small cell technology drivers

Which technology do you expect to be the biggest driver of small cell shipments in 2012-2017?



Source: Informa Telecoms & Media Small Cell Survey 2012

O2 is using a combination of point-to-point and point-to-multipoint microwave, and fibre technologies for backhaul. Fibre, says Joyce, can be troublesome, particularly given that restrictions on digging up roads are in place ahead of this summer's Olympic Games. "Some cobbled streets you can't dig up at all," he adds.

The end result of all these idiosyncrasies is spiralling costs.

"We want these [small cells] in for less than $1,000 (£640) per installation," including everything from site acquisition to power and backhaul, says Joyce, but he admits O2's London deployment cost "thousands of pounds per lamp post". "We've had to spend a bit more money than we would have liked to," he continues. "Small cells need small costs. They can't cost what they cost us to deploy in London."

Yet there are some who claim the industry is not investing the required capital to meet future global demand for capacity.

"We're going to start to fall behind by around 2014," predicts Joe Madden, principal analyst at Mobile Experts. Over-contended mobile networks will result in surging churn rates and remedial measures from operators to counteract them, he says. "Unhappy customers will drive us to do things that economically are not healthy," Madden continues. "The economics favour a balance between macro, metro and pico, but demand will drive a pico-heavy deployment."

A HetNet land-grab could be on the cards, with operators vying with one another for prime real estate, again resulting in higher expenditure.

"If you don't get there first, you're not going to get there for the next five to 10 years," warns Rob Reagan, president of small cell specialist Public Wireless.

One solution, he suggests, would be to extend the network-sharing model that has emerged in the macro world into the HetNet world. "If operators had to share macro [infrastructure], they will absolutely have to share their small cell footprints," to maintain control over costs, he says. "We're headed towards multi-operator [small cell] solutions."

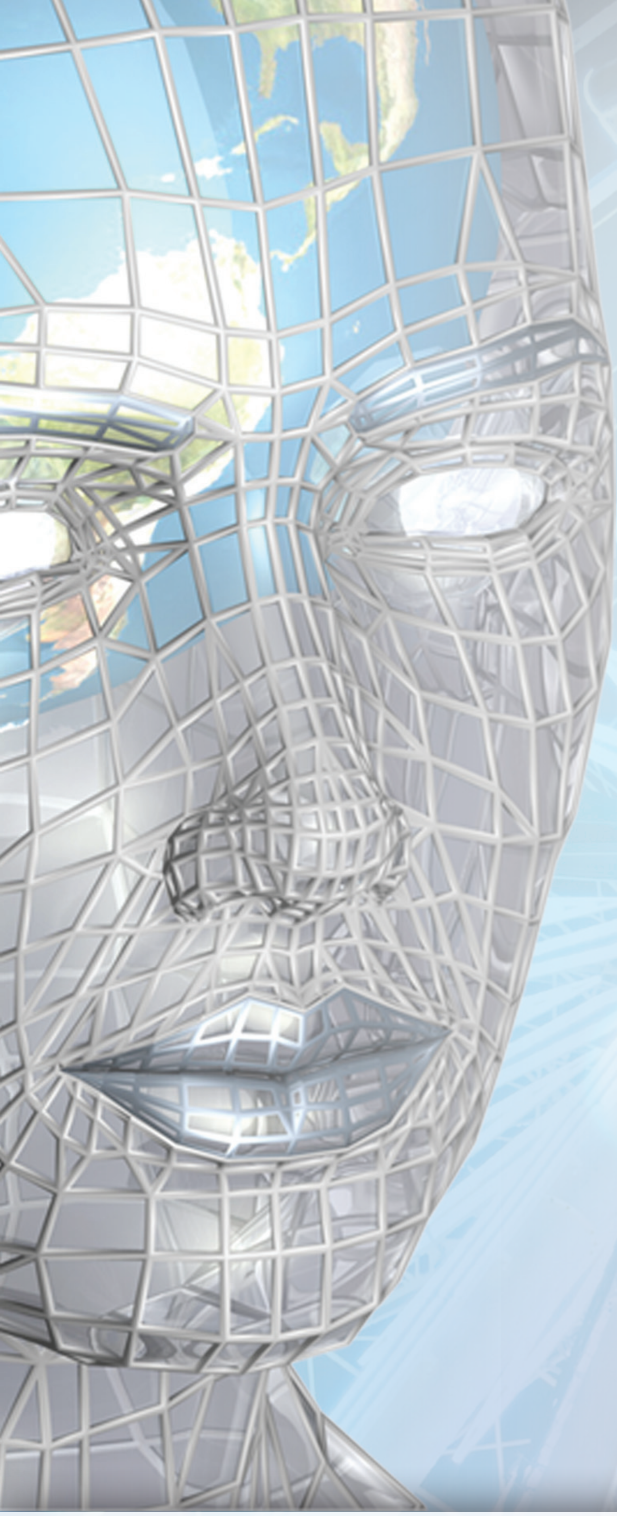
This scenario also opens the door for wholesale infrastructure providers like American Tower, GTL Infrastructure, or Crown Castle to take the cost and complexity out of HetNet deployment by acquiring and leasing sites to multiple operators.

"The neutral host is the missing piece of the puzzle in the small cells environment," says Reagan. However, he admits that this strategy will not find favour with everyone, as some players opt for the land-grab in a bid to outflank rivals.

"Some will use small cells as a differentiator," says Simon Saunders, chairman of the Small Cell Forum. "I will use them to lift the experience of my customers over my rivals."

Ultimately, as far as Ericsson is concerned, when it comes to a HetNet it is not just the cell sites an operator builds that are important, but also the sites it does not. "If you put small cells every 50 or 60 metres, it's very expensive," says Per Thorzell, head of solutions communities at Ericsson Malaysia. "If you can avoid building a site at all, that's the most cost effective method." ■

The neutral host is the missing piece of the puzzle in the small cells environment



INDONESIA

THE MISSING BRIC

Indonesia offers robust growth potential, but the country's mobile providers are operating in a tough climate. **By Mary Lennighan**

With a GDP growth rate of more than 6% in four out of the past five years and the world's fourth-largest population, there is little wonder that many people are suggesting that Indonesia should take its place alongside Brazil, Russia, India and China in the BRICs, the world's developing economy giants.

In the telecoms space, the country is certainly experiencing rapid growth; according to Paul Budde, it surpassed 260 million mobile subscribers in early 2012, up by almost 200 million in five years. "Despite penetration being around 110%, there is still considerable opportunity for expansion in Indonesia's mobile market when compared with some of its Asian neighbours," the analyst firm said.

But with falling prices, a difficult regulatory regime, and fierce competition, mobile operators are having to work hard to benefit from the country's promise.

"The challenges [in Indonesia] are absolutely unbelievable," both from a geographic and regulatory point of view, says Colin Miles, chairman of the Asian arm of industry association MEF.

"The revenue per minute has been decreasing dramatically," says Erry Nugroho, head of data product portfolio at PT Indosat. He says voice revenues now stand at around 2 cents per minute, down from 16 cents in 2005. Meanwhile, market leader Telkomsel, owned by PT Telkom, reported blended ARPU of 39,000 rupiah (US$4.15) in 2011, down from Rp42,000 the previous year and Rp80,000 in 2007.

Operators are naturally looking to value-added services to maintain margins, but they face a number of major hurdles.

Ring-back tones were a major revenue-generator for PT Telkom and its rivals until October last year when the regulator ordered mobile providers to stop premium services–including ring-back tones and premium SMS services–in a bid to address a series of customer complaints about the loss of prepaid credit. "What's next after RBT?" asks Sri Safitri, senior manager, marketing, at PT Telkom.

The company is looking to offset that lost revenue with new content services, including music, video and gaming. It has launched a beta service integrating music and video, and plans to offer games in future, provided network limitations allow. At present, video quality is "acceptable", Safitri says.

The country's operators are facing an acute spectrum shortage. Hutchison's 3 has just 2x20 MHz of spectrum, half in the 1800-MHz band and half in the 2.1-GHz (3G) band. Its 3G spectrum consists of two non-contiguous 5-MHz blocks, although the regulator, the BRTI, plans to rearrange the allocations in this band before selling off two remaining 5-MHz blocks of 2.1-GHz spectrum.

"The regulator's plan to rearrange spectrum allocation...may cost the operators Rp20 billion-Rp40 billion [$2bn-$4bn] to retune their network or shave up to 1.4% off their core net profit," said CIMB analyst Kelvin Goh in a research note. More importantly, the rearranging could disrupt services, he added.

To make matters worse, the BRTI has delayed the auction of 2.3-GHz spectrum for LTE services until at least late 2013. And just three blocks of 2x20 MHz of spectrum will be up for grabs, which could inflate prices.

In the meantime, Indosat is working on refarming its existing spectrum holdings for LTE, having conducted trials late last year.

Meanwhile, PT Telkom has a different approach: unlicensed spectrum. "The future of mobile broadband is fixed," says Safitri. She explains that the telco's priority is to expand its capacity and as a result plans to roll out 1 million WiFi hotspots across Indonesia over the next five years.

In addition to network constraints, Indonesian operators also face particular challenges when it comes to making money out of content services.

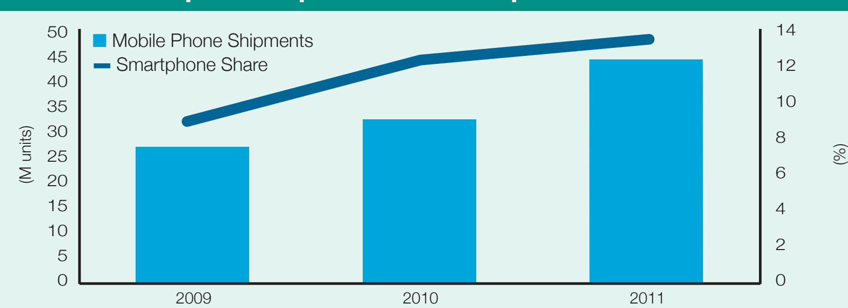
Widespread piracy means customers are unwilling to pay even small amounts for content. PT Telkom launched a music service priced at just 10 cents per week for unlimited songs, "and still it doesn't fly because they can get it for free anyway," says Safitri. "Even 10 cents, they don't want to pay."

Indonesia mobile subscribers, top five operators (millions)

	2010	2011
Telkomsel	94	107
Indosat	44.3	51.7
XL	40.35	46.36
3	16.24	19.97
Axis	10	16
Smartfren	2.27	7.65
TOTAL (top 5)	**207.16**	**248.68**

Source: Operator data

Indonesia mobile phone shipments and smartphone share



Source: IDC

Indeed, when Apple extended its iTunes digital music store to 12 new Asian markets in June Indonesia was not among them. However, days earlier Google's free video service YouTube heralded the launch of its Indonesia-specific service and domain.

Indosat's Nugroho lists mobile Internet, messaging, and mobile payments as the three key growth areas for Indonesian mobile operators between now and 2016. Telcos have a dominant revenue share in mobile Internet and messaging, but elsewhere, "the industry will be dominated by third parties," he warns.

"Previously our competition...[came from] the players within the industry," he says. "[Now] Internet, IT and even the mobile device manufacturers are trying to enter the mobile industry to grab the opportunity." ■

Thailand inches towards 3G

Thai mobile users are getting ready for the rollout of 3G services in the country, which after years of waiting looks set to take place following the auction of 2.1 GHz spectrum scheduled for October.

The country's National Broadcasting and Telecommunications Commission (NBTC) in late June set a minimum price of 4.5 billion baht (US$140 million) for 5 MHz of bandwidth. In total there will be 45 MHz of spectrum up for grabs, with operators restricted to acquiring a maximum of 20 MHz each.

Thailand's main mobile operators already offer limited 3G services via various agreements with state-owned operators TOT and CAT, but as it stands only TOT holds 2.1-GHz spectrum. AIS claims to be Thailand's largest mobile operator in terms of both subscribers and revenues; it had 31.14 million subscribers as of Q1 2012. Telenor-owned DTAC had 23.43 million at the same date, while True reported 19.3 million.

New statistics released by GfK Thailand suggest there is a pent-up demand for mobile data services in the country. According to the analyst firm, 758,000 smartphones were sold in Thailand in the first quarter of 2012, up more than 80% on the year-ago quarter. Feature phones continue to dominate though; smartphones made up just 20% of the total 3.8 million mobile phones sold in Q1.

"Smartphone penetration level in Thailand is considered low when compared with some of the other markets in the region, like Singapore and Malaysia where the larger proportion of the population have already converted from their feature phones," said Dr Wichit Purepong, general manager of GfK Thailand, in a research note. "This presents a huge potential to smartphone manufacturers and we can expect the rate of adoption to accelerate when telecom operators in the country fully roll out their 3G services in the very near future."

INDIA

DIFFICULT DECISIONS

Uncertainty over spectrum auction prices and 3G tariff wars make India a tricky investment choice for foreign companies. **By Mary Lennighan**

Foreign telcos are understandably showing caution when it comes to playing a role in India's fast-growing mobile market.

The government has yet to set a minimum price for the forthcoming re-auction of cancelled 2G licences, but will doubtless seek to part the winning bidders with as much cash as possible. Meanwhile, an intensifying price war in the 3G space is making life difficult for the telcos, who are also facing a revenue hit, at least in the short term, from the country's new telecom policy, designed to provide some much-needed clarity to an uncertain regulatory regime.

However, there are also those that maintain there is money to be made, if only operators know where to look.

United Arab Emirates-based Etisalat closed down its Indian mobile operation in March following the cancellation of its licence and said it will make a decision on future involvement in India when there is greater regulatory certainty and clarity over auction rules.

And Norway's Telenor, owner of Uninor, the most successful of the recent newcomers to the market, will not confirm its participation in the auction until the government shares pricing details. When in April the TRAI recommended that a nationwide licence in the 1800-MHz band cost a minimum of 36.22 billion rupees (US$660 million), Telenor warned that it would be "almost impossible" for it to participate in the auction under those terms. Uninor reiterated that position in June, at the same time calling for the government to allow operators to pay for licences in instalments, "due to funding reluctance of banks."

India had aimed to auction eight blocks of 1800-MHz spectrum and three blocks of 800-MHz spectrum by the end of August, but as Total Telecom+ went to press reports were emerging that the Department of Telecom had admitted it was unable to meet that deadline as its ministerial panel had yet to address outstanding auction issues, including the thorny issue of price. That panel will be headed by home minister Palaniappan Chidambaram

Meanwhile, the 3G market is no great source of joy to India's mobile operators, which have, almost without exception, slashed prices for mobile data usage in recent months.

"The prices of 3G services have dropped by 70%. They are more or less in line with 2G services," says Hemant Joshi, telecom leader at Deloitte India. As a result, "It has to be a volume game," he says.

Tata DoCoMo was the latest to cut prices in late June, reducing the cost of its entry-level 3G packages with 1 GB of data to 250 rupees ($4.55) from 650 rupees. Days earlier Vodafone India cut its pay-as-you-go data tariff by 80% to 0.02 rupees per 10 KB and removed on-network data roaming rates. Idea Cellular, Reliance ▶

Communications, MTNL and Bharti Airtel were also among those cutting prices. Idea aims to triple its 3G subscriber base–2.9 million as of the end of May–by the end of the current financial year.

One of the great impediments for 3G is the lack of appropriately-priced handsets, says Joshi, noting that even sub-$100 smartphones are "still very expensive."

And Milinde Pande, project director, MIT School of Telecom Management, Pune, believes "handset customisation and content development in the local language is the main challenge," when it comes to getting people to use mobile data services. He points out that there are 22 official languages in India.

"I have yet to find the operator who has been successful and profited from 3G," says NK Goyal, president of Indian IT and telecoms body CMAI. However, Joshi believes it can be done. "[The customer] will pay for services that have an impact on his or her life," he insists.

"There is a lot of content that works on 2G," he adds, suggesting that operators need to "stop chasing the cheerleaders" and go after the low-value, high-volume customers instead. The key, he says, is to understand who the customer is and what he wants.

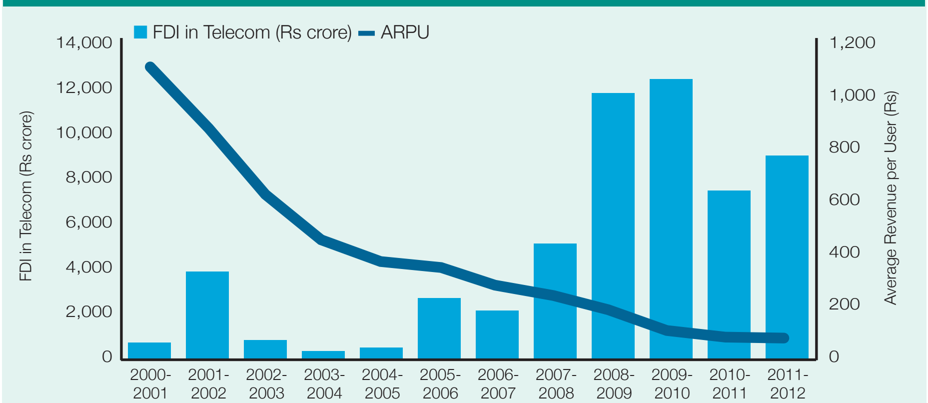
India's new telecom policy, which was approved by the Indian cabinet in late May, is designed to "provide a predictable and stable policy regime" for the next 10 years and should provide better telecoms service for consumers in both urban and rural areas. Amongst other things it will introduce nationwide licences rather than licensing operators on a circle-by-circle basis. Consequently, mobile users will no longer have to pay inter-circle roaming rates, currently a significant revenue-generator for operators.

"There will be in the short term a revenue impact," says Joshi. "[But] as the roaming goes down the usage will increase... In the long run the industry will benefit," he predicts.

But this is India, and history suggests "the long run" could be a very long time. It could take some years before the single licence system is implemented. ■

The prices of 3G services have dropped by 70%...As a result it has to be a volume game

Foreign direct investment in telecoms and ARPU



Source: TRAI

CHINA

CRUNCH TIME

China Mobile doesn't just want a flagship TD-LTE handset, it desperately needs one to enable it to compete in the long term. **By Nick Wood**

China Mobile's long-term future as the world's biggest operator by subscribers depends greatly on whether it can foster a healthy TD-LTE ecosystem.

That might be hard to believe considering it boasts in excess of 677 million customers–three times more than closest rival China Unicom and nearly five times more than China Telecom–but the reality is that China Mobile has felt the sting of being hamstrung by niche access technology. By failing to convince big device makers to make their most high-flying models compatible with its home-grown 3G standard, TD-SCDMA, the company has so far struggled to win over big-spending early adopters.

Indeed, 3G subscriber numbers show that China's mobile market is far more competitive than it appears on the surface, and is likely to remain that way going forward.

China Mobile is still ahead with 64.3 million 3G customers at the end of May, but that figure represents less than 10% of its overall subscriber base. Meanwhile rivals China Unicom and China Telecom are hot on its heels with 54.5 million and 48.2 million 3G users respectively. And in May alone China Mobile added 2.4 million 3G customers, slightly fewer than China Unicom's 2.7 million and China Telecom's 2.6 million.

In what some observers consider a crucial contributing factor, China Mobile is also the only carrier not to offer a 3G iPhone, although former chairman Wang Jianzhou revealed to *Bloomberg* in September that the operator had 8.5 million customers using iPhones on its 2G network.

Topeka Capital Markets analyst Brian White, who is consistently bullish about Apple, said in a recent investor note that China Mobile is "in need of the iPhone" if it wants to maintain an edge over the competition. ▶

Wang was confident that discussions towards the end of last year between China Mobile and Apple about developing a TD-LTE iPhone would bear fruit. However, his successor Xi Guohua has been more conservative; in May he was quoted as saying that "China Mobile and Apple both have the will to strengthen cooperation...When there is more specific news, we will disclose it".

He admitted during June's Mobile Asia Expo in Shanghai that "the device front is the bottleneck", rather than the technology or building the network. China Mobile plans to roll out 200,000 TD-LTE base stations by 2013.

China Mobile is in need of the iPhone if it wants to maintain a competitive edge

"For TD-LTE to develop, it depends greatly on the handset," said Zhang Jianguo, CTO of ZTE's Asia Pacific region, in a recent interview with *Total Telecom*. He predicts TD-LTE adoption will accelerate with the launch of compatible smartphones; however, the addressable TD-LTE subscriber base is currently too small to attract much interest from big device makers. The equipment vendor reportedly plans to launch its first TD-LTE handsets by the end of this year.

In future, the compatibility between time division (TDD) and frequency division (FDD) flavours of LTE could be a moot point. Ericsson announced in June it had successfully completed a seamless FDD/TDD handover on China Mobile Hong Kong's live LTE network.

"Ericsson is dedicated to ensuring the success of converged LTE FDD/TDD for operators, so that they can make the most of their spectrum investments and provide the best quality service for their customers," said Mats Olsson, Ericsson's China and Northeast Asia president.

In addition, mobile chip giant Qualcomm unveiled multi-mode chipsets that support both FDD and TD-LTE.

However, with the LTE FDD ecosystem already firmly established thanks to a multitude of network deployments in Asia-Pacific, Europe and the US, it will be up to operators like China Mobile to drive the business case for TD-LTE devices. ■

Broadband boom

Asia remains the world's biggest fixed broadband market and its fastest growing, according to new figures from Point Topic. The region added 8.58 million new lines in the first quarter of 2012 to reach 262.08 million; the global total at the same date reached over 600 million. Asia's 15.19% year-on-year growth rate means it is expanding faster than all other regions of the world.

China is still the biggest single market for broadband, having grown its subscription base by 19.17% over 12 months to reach 164.36 million connections at the end of Q1. The five Asian countries that feature in the global top 20–China, Japan, South Korea, India and Taiwan–together have 239 million broadband subscribers, more than one third of the global total. India almost matched China for growth, expanding its broadband base by 19.11% over a year to 13.4 million subscriptions.

Both China and India are making efforts to develop their broadband infrastructure. ZTE in June announced that it had won a 40% share of China Telecom's fibre broadband equipment contract, which in total is valued at around 4 billion yuan (US$635 million). Meanwhile, the Indian government set up a new company–Bharat Broadband Network–to roll out a national fibre-optic network to extend high-speed broadband services to rural areas. The project will cost 200 billion rupees ($3.5 billion) and will see Bharat Broadband lay 500,000 km of fibre.

CLOUD SERVICES

A QUESTION OF TRUST

Asian telecoms operators could find themselves in a strong position to take advantage of the region's burgeoning cloud services market. **By Mary Lennighan**

Asian telecoms operators have an advantage over their counterparts elsewhere in the world: locally-headquartered businesses trust them to provide cloud services.

In a survey of IT decision makers conducted by Alcatel-Lucent last year, the majority of respondents in key Asian markets selected the local telecoms incumbent as the most likely player to win their cloud services business. This suggests there is a growing opportunity for telecoms operators to take a significant slice of the lucrative cloud services market, which Gartner predicts will be worth US$177 billion globally by 2015.

Enterprises are beginning to realise that it is difficult for them to ensure adequate security on their own networks so, "as long as it's a reputable service provider...it's probably safer to have data on the service provider's premises," says Amit Sinha Roy, VP marketing & strategy, global enterprise solutions, at Tata Communications.

"Asia-Pacific as a whole is still in the early stages of adoption" of cloud services, compared to the US, he says. "[But] we're seeing a very sharp ramp in terms of adoption across all markets."

And operators are in a strong position to benefit from that growth.

"Within countries we see that local brands are competing with global providers or even overtaking them. This is especially true in France, Hong Kong, Taiwan, and South Korea," Alcatel-Lucent reported in its global cloud IT decision maker's study published in May. In Taiwan incumbent operator Chunghwa Telecom was selected by 46% of respondents as the company most likely to win their business, with the likes of Google and Amazon lagging behind. By comparison, the US market is more evenly split, with just over a third of respondents selecting one of the big telcos.

According to China's Huawei, the biggest opportunity for Asian operators lies in serving local businesses.

The big US operators are snapping up all the big US-based companies in Asia, says Barry Lerner, South Pacific regional CIO at Huawei. "Stay local. Go after those enterprises," he advises.

"Indonesian companies like dealing with Indonesians, adds Sue Bryant, director of Huawei's CIO office. "The emerging markets are a prime candidate for cloud," she says, noting that around 90% of IT spend in Indonesia is on hardware. This provides telcos with an opportunity to pitch Infrastructure-as-a-Service (IaaS) offerings.

It is still early days for IaaS in much of the Asia-Pacific. "Adoption of Software-as -a-Service is significant," but IaaS is just starting to gain traction, largely as a result of "the network infrastructure readiness," says Tata's Roy. In India, the network is "now at a level where Infrastructure-as-a-Service has become real," he says, but it is still not comparable to a developed market like Singapore.

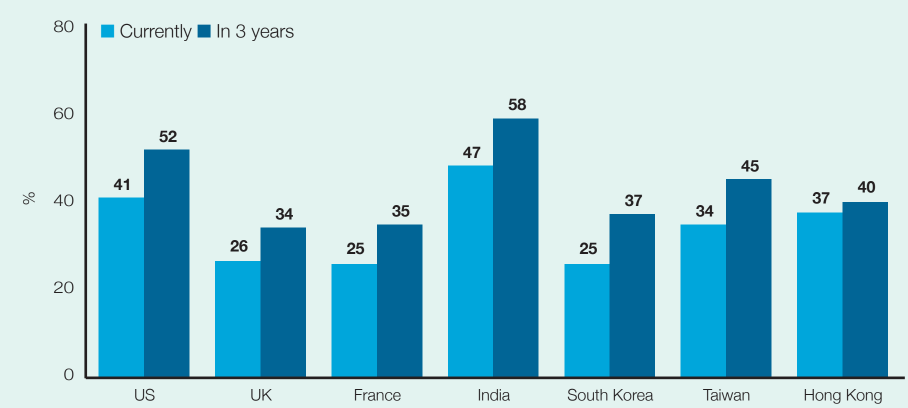
According to Alcatel-Lucent's survey, the technology, professional services, and service industries sectors are the furthest ahead in Asia on cloud services adoption.

"The telcos are trying to vertically line themselves up," says Lerner. In Australia operators are looking at the mining and medical sectors, while in Singapore the financial space is key, he says.

But if the operators want to make the most of the cloud opportunity they will have to move quickly.

While in Europe there is a deep sales cycle, in Asia the salesforces are smaller and the cycles faster. Businesses in Asia "don't wait; they just do things," says Lerner. ■

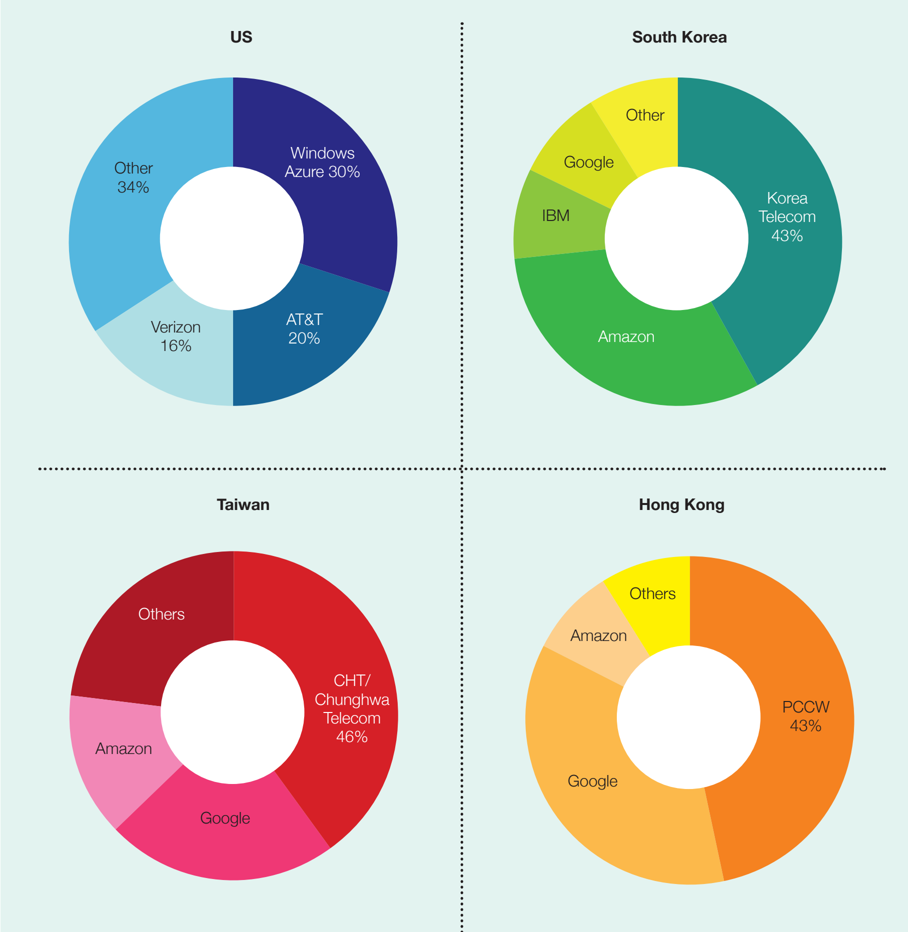
Who will make extensive use of external cloud solutions?



Source: Alcatel-Lucent

Local brands are competing with global providers or even overtaking them

Which company do you think would be most likely to win your business?



Source: Alcatel-Lucent

MOBILE HEALTHCARE

HEALTHY DEBATE

Mobile operators are looking to capitalise on a global desire to improve healthcare, but opinion differs on the size of the opportunity. **By Mary Lennighan**

"If you are under the age of 50, there's a 90% chance you will live to be 100," Rohit Talwar, founder and CEO of Fast Future Research, told delegates at Total Telecom Wireless World in London last month.

The desire to improve healthcare, and thereby live longer and better, is universal. And the raft of new healthcare services shows various players in the mobile industry are keen to capitalise on this trend. However, there is still some debate over the size of the opportunity for the mobile operators.

In July Japan's NTT DoCoMo teamed up with medical kit maker Omron Healthcare to create a joint venture to develop a range of healthcare support services; the mobile operator will own 66% of DoCoMo Healthcare. Earlier this year Vodafone and Boston Scientific agreed to jointly develop mobile health monitoring solutions and in June Samsung made its S Health lifestyle app–which works with healthcare sensors, such as blood pressure monitors–available to Galaxy S3 smartphone users.

Healthcare is going to be one of the biggest opportunities in M2M in the next 10 years

The m-health market will be worth US$23 billion by 2017, according to a report compiled by PwC for the GSMA earlier this year. $11.5 billion of that will be up for grabs by the mobile operators for the provision of pervasive m-health services and applications. There's a revenue opportunity of $6.6 billion for device vendors, $2.6 billion for content and application providers, and $2.4 billion for healthcare providers. Remote monitoring services (for heart patients, for example) will account for 65% of the market, followed by diagnosis services at 15% and treatment services–such as SMS reminders to people to take their medicine–will take 10%.

The m-health market will be driven both by "developed countries needing to reduce the cost of universal healthcare and developing countries looking to roll out life-saving services to in-need communities," said Jeanine Vos, executive director m-health at the GSMA, in a statement.

But some believe the opportunity for mobile operators lies almost solely within the machine-to-machine healthcare space, which excludes things like SMS reminders and m-health services that do not use the cellular network.

"Opportunities for MNOs outside the M2M space are generally not significant," says Jim Morrish, director at Machina Research. "Real clinical revenues need systems integration capabilities. And any SMS-based solutions may be high margin right now, but they will never achieve both high volume and high levels of scale. Prices would have to come down to near data levels as a precondition for widespread adoption," he says.

However, Machina Research predicts a US$4.22 billion revenue opportunity for mobile operators from M2M healthcare applications, with more than half–$2.51 billion–coming from remote monitoring for the "worried well", or people using applications to maintain health, rather than to monitor or treat conditions.

"Devices for the worried well can be sold simply by using brand and existing customer relationships, particularly devices that are peripheral to mobile phones," says Morrish, such as heart rate monitors or accelerometers that measure daily activity. Mobile operators could also act as a channel to market for assisted living solutions which, when bundled with remote monitoring, could generate high margins, he says.

"Household devices for the worried well or to support low-end assisted living solutions are an opportunity too," he says, adding that with wireless WAN connections these could work out of the box, rather than needing to be connected to the home network.

But while operators are certainly looking at the M2M space, they have differing views on the healthcare opportunity.

"A lot of the growth [in M2M] is around transport and logistics...Health is pretty damn small," said Marc Overton, VP wholesale and M2M at UK mobile operator Everything Everywhere. He shared statistics published by Informa Telecoms & Media in May that show the medical and healthcare sector account for just 5% of publicly announced M2M contracts, compared with 40% for automotive and fleet/asset tracking and 22% for smart metering.

But others are more bullish. "We're putting significant resources in [to health]," said Andrew Edison, vice president, EMEA, at AT&T. "It's already a $5 billion business for us," he added, noting that AT&T has a 300-person dedicated healthcare business. "[There are] very significant opportunities for us in this market globally," he predicted.

Meanwhile, Mike Short, vice president at Telefonica Europe, highlighted the "wellness" space as key for operators. According to analysts, there will be 500 million people using wellness and healthcare apps in the world by 2015. "I think it will get there sooner," Short said.

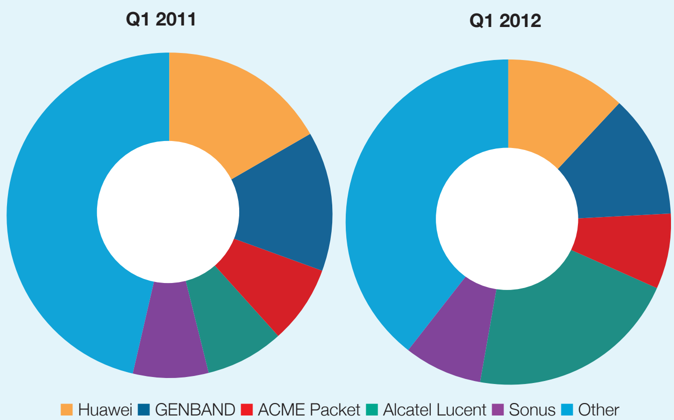
"Health is more than just the absence of disease," agreed Fujitsu medical director Joel Ratnasothy. With wellness apps we can move from treating to preventing disease and that's "where our industry can offer the most value," he said.

Healthcare might not be the number one opportunity in the M2M space, "but it's going to be one of the biggest in the next 10 years," Short said. ■

ALU DEAL DRIVES VOIP/IMS KIT MARKET

The global service provider VoIP equipment market grew by 1% sequentially to $715 million in the first quarter of 2012 due to exceptionally strong IMS equipment spending, according to Infonetics Research. “In the first quarter of 2012 we saw the largest order of IMS core equipment and application server licences on record, secured by Alcatel-Lucent, a clear sign that operators in North America are gearing up for voice over LTE (VoLTE) deployments,” said Diane Myers, principal analyst for VoIP and IMS at Infonetics. Ongoing fixed-line network transformation, fixed-mobile convergence and voice over broadband (VoBB) projects over IMS also boosted the market, Myers said. Alcatel-Lucent more than doubled its service provider VoIP and IMS revenue and market share in Q1, pushing it ahead of perennial leaders Huawei and Genband.

TOP SERVICE PROVIDER VOIP & IMS REVENUE MARKET LEADERS



Source: Infonetics Research

$386

The average selling price of a tablet globally in Q1 2012, down 21% on-year
(IMS Research)

RUSSIAN MOBILE SLIDE

Russia’s mobile market has hit saturation point, according to the latest figures from Wireless Intelligence. The country’s top three operators–MTS, MegaFon and Vimpelcom–all lost subscribers in the first quarter of this year, with the market as a whole contracting by 1.7 million connections; third-largest player Vimpelcom lost around 1.6 million connections, although some of the market’s smaller providers, like Tele2, gained customers. At the end of Q1, Russia was home to 227.1 million mobile subscribers putting penetration above 160%.

$1.6 billion

Global optical components revenues in Q1 2012
(Ovum)

LTE DEVICE GROWTH

The number of LTE user devices announced by manufacturers has doubled in the past year, according to the Global mobile Suppliers Association. 67 vendors have between them announced 417 LTE-enabled devices, including 83 smartphones and 31 tablets. 193 devices are capable of operating in the 700-MHz spectrum band used in the US, but the number of devices that can use 800-MHz, 1800-MHz and 2.6-GHz spectrum is also growing rapidly.

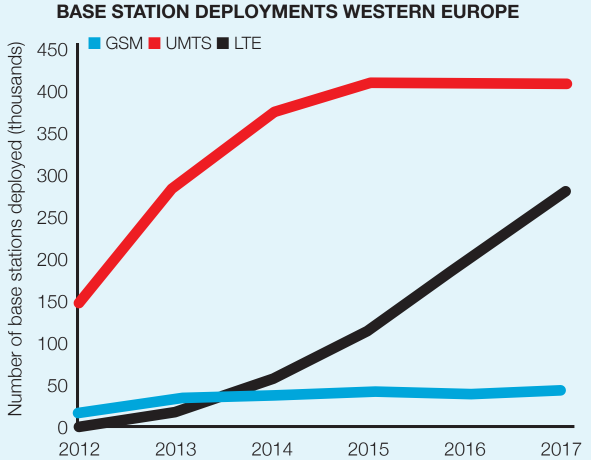
392.4 million

Green mobile handsets shipped worldwide in 2017
(Juniper Research)

BASE STATION BOOST

Mobile operators in Western Europe will need to deploy more than 140,000 UMTS base stations this year and the same number in 2013, but capacity upgrades–such as HSPA+, dual-cell and MIMO–in 2013-2016 will reduce demand for new base stations, according to new research from Analysys Mason. In the 2015-2017 period LTE capacity will largely replace UMTS capacity; just under 280,000 additional LTE base stations will be required in Western Europe between 2012 and 2017, the firm predicts.

BASE STATION DEPLOYMENTS WESTERN EUROPE



Source: Analysys Mason

CONTACTS

EDITORIAL
4th Floor, Welken House,
10-11 Charterhouse Square, London EC1M 6EH
+44 (0)20 7608 7030; newsdesk@totaltele.com

TOTAL TELECOM
Mary Lennighan mary.lennighan@totaltele.com
Editor +44 (0)20 7608 7069
Nick Wood nick.wood@totaltele.com
Assistant Editor +44 (0)20 7608 7046
Michelle Young m7chelle@gmail.com
Art Editor

ADVERTISING
HEAD OFFICE, LONDON
Keith Dalton keith.dalton@totaltele.com
Sales Director +44 (0)20 7608 7065
Jessica Gillies jessica.gillies@totaltele.com
Sales Manager +44 (0)20 7608 7027
Oliver Chandler oliver.chandler@totaltele.com
Events Manager +44 (0)20 7608 7041

UNITED STATES AND CANADA
KCS International
T +1 717 397 7100 F +1 717 397 7800
Karen C Smith-Kernc – East KarenKCS@aol.com
Alan Kernc – West & Canada AlanKCS@aol.com

JAPAN
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Tally Judge tally.judge@totaltele.com
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Ruth Clark ruth.clark@totaltele.com
Marketing Executive +44 (0)20 7608 7047

EVENTS
Matthew Secker matthew.secker@totaltele.com
Conference Director +44 (0)20 7608 7039
Charles Georgiou charles.georgiou@totaltele.com
Project Manager +44 (0)20 7608 7071

MANAGEMENT
Rob Chambers rob.chambers@totaltele.com
Publisher +44 (0)20 7608 7077
Greg Hitchen greg.hitchen@terrapinn.com
Chief Executive Officer

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