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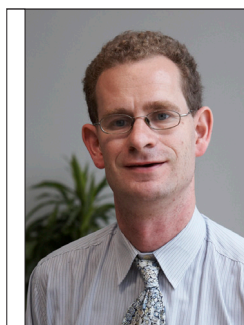
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C&M fighting off fixed-line operators' IPTV challenge

Tony Brown

- South Korea's leading MSO, C&M Communications, says its core cable TV business has barely been affected by the launch of IPTV services.
- Low digital-cable-TV prices are making it hard for fixed-line operators to undercut the cable TV players and win market share.
- The merger of CJ Media and On Media might see IPTV operators gain more channels.
- C&M has converted nearly 1 million of its 2.3 million subscribers to digital cable TV services.
- C&M admits that the launch of IPTV has made it harder to win broadband market share from fixed-line operators.

Life has been pretty tough the past couple of years for South Korea's cable MSOs, with the country's powerful triumvirate of fixed-line operators setting up camp in the pay TV market with the launch of IPTV services.

Market giant KT was the first to launch full IPTV services, in November 2008, with SK Broadband and LGU+ following suit in January 2009.

While the IPTV players have gotten huge media coverage with the launch of their cutting-edge services, less attention has been paid to the cable TV MSOs, which have been deploying their own digital services.

So, more than two years after IPTV services properly entered the market, how has the country's most successful MSO – Macquarie Bank-owned C&M Communications – been faring against its far-better-resourced fixed-line rivals?

Digital-TV subs numbers surging

In discussions with Informa Telecoms & Media, a senior executive from C&M Communications said that the entry of IPTV services has had a minimal effect on C&M's core cable TV business, estimating that the operator lost only about 1,500 subscribers to the IPTV players in 2010.

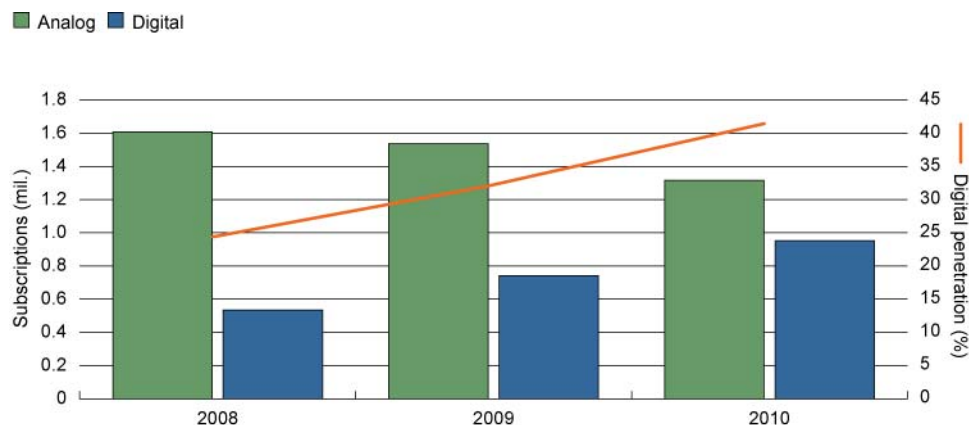
C&M has been helped by the IPTV players' inability to gain access to many of the country's most popular cable channels because they have not been able to strike carriage deals with leading program providers. The IPTV operators carry fewer than 10 of the country's top 50 cable channels, a fact that illustrates the gulf in content between the rival platforms.

As a result the IPTV players have effectively been fighting with one hand tied behind their back – though it looks as if they will gain access to more channels soon – and the cable operators have therefore been able to hold onto the vast majority of their subscribers.

Nonetheless, C&M has not been content to sit still and hold onto its analog subscribers and has instead been working hard to migrate them to digital services, with some considerable success.

C&M operates 16 cable networks, with 85% of its subscribers located in the wealthiest and most densely populated areas of the Seoul metropolitan area, making the operator the blue-chip player among the country's major MSOs. By end-2010 C&M had moved about 952,000 subscribers to its digital services (see fig. 1) – including 600,000 subs taking its premium HD package – meaning that about 42% of its subscribers now take digital.

Fig. 1: C&M cable TV subscription growth, 2008-2010



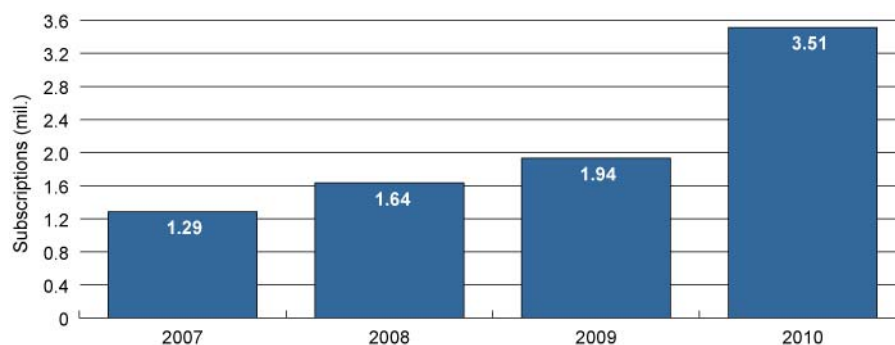
Source: C&M

That is the highest migration rate among South Korea's MSOs, with the other players moving only 30-35% of their subscribers to digital. And C&M says it is confident it will have about 60% digital penetration by year-end.

But the company says that once it has migrated about 1.5 million subscribers to digital, the pace of migration is likely to slow, because it's likely that a hard core of analog subscribers will be reluctant to make the switch, largely because of the migration costs involved.

The Korean Communications Commission (KCC) has targeted end-2012 for the switch-off of all analog broadcasting. But with the market having only 3.5 million digital cable subs at end-2010 (see fig. 2), out of a total of 15 million cable subs, the target date looks ambitious.

Fig. 2: South Korea, digital-cable subscriptions, 2007-2010



Source: Informa Telecoms & Media

As a result, many in the local cable industry are speculating that the KCC will be forced to delay the analog switch-off because of the potentially huge backlash from local subscribers if their cable signals are turned off and they are left without access to services.

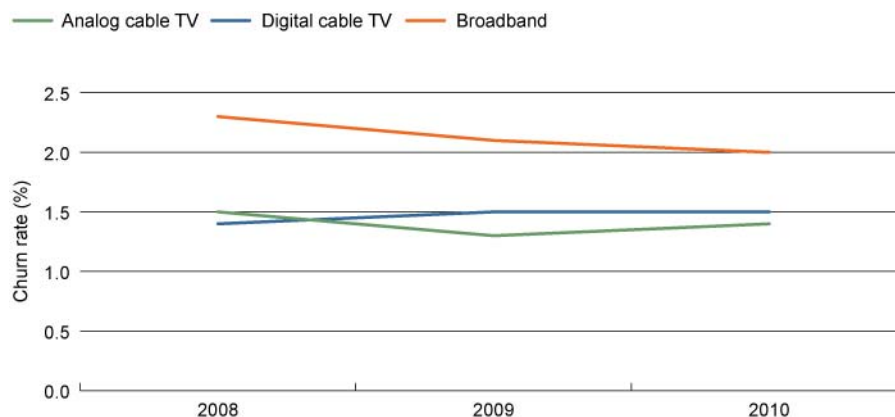
The price is right

Ironically, another key reason C&M has been able to prevent the IPTV operators from poaching its subscribers is that its digital cable services are priced so low, especially when compared with other markets in the region.

The MSOs have long been frustrated at the low ARPU they are generating from their digital services. Because subscribers became conditioned to receiving up to 80 analog channels for only about KRW15,000 (US\$13.40) a month, MSOs have been forced to adopt a cautious approach to pricing their digital services. For example, C&M subscribers can receive a digital package of up to 150 channels – including a package of HD channels – for as little as KRW22,000 a month. Such pricing has ultimately prevented the fixed-line operators from using their financial muscle to undercut the MSOs on price.

C&M says that churn rates on its digital services are extremely low, running at 1.5% a month in 2009 and 2010 (see fig. 3).

Fig. 3: C&M multiplatform annual churn rates, 2008-2010



Source: C&M

C&M says the ultralow churn rates on its digital services demonstrate the lack of impact that IPTV services are having on the market, claiming that if IPTV were presenting a serious challenge, C&M's churn rates would be running at closer to 4% a month.

Analog haunting the IPTV players

As the battle between cable TV and IPTV plays out, one of the great ironies emerging is that the long-term, committed analog-cable subscribers, for so long a huge source of frustration for the cable MSOs, are actually becoming a big asset to them. This large group of subscribers, largely but not exclusively located outside the wealthy Seoul metropolitan area, is effectively off-limits to the IPTV operators, because they are happy with their analog services.

Moreover, the MSOs are able to "double-dip" in many cable homes by supplying the main TV in the home with a digital settop and continuing to supply other TVs in the home with analog services that do not require a settop. This option is not available to the IPTV operators, which need to supply a settop to every TV in the household that requires access to services – meaning that IPTV does not have the same flexibility that cable does.

The content factor

Since the announcement of the merger of leading cable-program providers CJ Media and On Media, speculation has been running hot that the merged entity, CJ Media & Entertainment, would strike a deal to supply its key channels to the IPTV operators.

Such a move would be crucial in leveling the content playing field between the cable MSOs and the IPTV operators. But C&M says no deal between the IPTV players and CJ M&E has been finalized.

And C&M says that even if a deal is struck, CJ M&E is likely to supply the IPTV operators with only their least popular channels and that the MSOs will remain in by far the most dominant position in the cable market.

The major advantage the IPTV players have in terms of content remains in VOD, in which they have invested heavily to offer an impressive library – a point conceded by C&M.

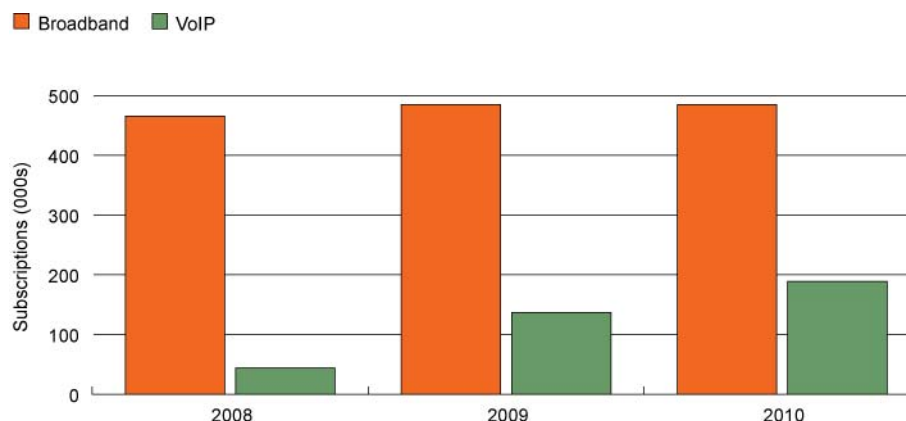
However, as the market has developed it has become apparent that although VOD has helped IPTV operators generate additional revenues, it has not been enough in itself to persuade people to cut their cable connections. Although the cable operators are offering a smaller VOD library, their VOD content is supplied by many of the leading program providers that are not supplying content to the IPTV players.

Bundling it together

One thing C&M concedes is that IPTV has made the fixed-line players' broadband services more attractive, making it harder for MSOs to poach broadband subscribers.

C&M has struggled to pick up new broadband subscribers over the past two years, with its broadband business actually losing a small number of subscribers in 2010 (see fig. 4), ending the year with 484,500 subscribers.

Fig. 4: C&M broadband and VOIP subscriptions, 2008-2010



Source: C&M

By contrast, C&M has experienced far greater success in the telephony market, where its VoIP subscription base more than quadrupled in size from end-2008 to end-2010, to just under 200,000.

C&M has built up a solid base of triple-play subscribers and has found that its digital-cable hardware, most notably its HD-based PVR settop, has significantly helped lower churn.

C&M's biggest weakness is its lack of a wireless voice or data offering, though the company says mobile services remain very much an individual, rather than household, choice in South Korea.

Informa viewpoint

The battle between the cable MSOs and the IPTV players in South Korea has been one of the most fascinating confrontations to watch in the regional pay TV market for a number of reasons.

First, it really is a David-and-Goliath-type battle, with the cable MSOs cast in the former role and market giants KT, SK Broadband and LGU+ most definitely in the latter category.

Second, events in South Korea mirror what is happening in several other key Asia Pacific markets, most obviously Taiwan, so what happens in the South Korean clash between cable and IPTV will give us key insights into what to expect in other countries.

Third, the battle in South Korea will help us understand far better how the dynamics of a pay TV market work in a practical fashion: Do subscribers just want access to their favorite channels, or are they looking for that something extra that IPTV can provide?

This is where things get especially interesting, because the South Korean market might help us find out whether a single pay TV market really can support two fixed-line platforms – especially regarding linear-channel services.

There will always be a place in some countries for DTH services, simply because many homes have no access to cable or broadband networks. But the crux of the issue in South Korea will be whether cable and IPTV can coexist with linear-channel offerings.

As things stand, it looks likely that the IPTV players will have to find ways to attract subscribers and revenues without counting on achieving a totally level playing field in terms of content – though that will probably happen one day.

What would make things really interesting is if one of the IPTV operators concluded that knocking the cable MSOs off their perch was just too hard and decided to buy an MSO instead and use it as its main weapon in the linear-channel pay TV market.

That would be the ultimate twist in the South Korean pay TV market story.

Case study: Chinese rogue iPhone-app store 91.com

Tingting Liu

- 91.com is a portal that provides software and applications for smartphone platforms.
- It has become the de facto free-app store for jail-broken iPhones in China by centrally aggregating and distributing cracked apps uploaded by individuals.
- It hopes to attract a large user base to its platform and monetize its mobile Internet business, via mobile advertising and mobile gaming.
- 91.com aims to become a leading mobile-app-distribution channel in China.

Background

Owned by Hong Kong-listed Chinese online-gaming company Net Dragon, 91.com is a portal in China that provides software and applications for smartphone platforms. Its most popular software, 91 Handset Assistant, is a third-party smartphone-management tool that supports all major smartphone platforms, including iPhone, Android, Windows Mobile, Symbian and China Mobile's OMS (see fig.).

91 Handset Assistant interface



Source: 91 website

91 Handset Assistant is most widely installed on jail-broken iPhones in China. The iPhone was not officially launched in China until October 2009, but the device has been available in China for years thanks to the country's rampant black market. Because of Apple's SIM-lock policy, iPhones that were available in China needed to be cracked before they could be used. Net Dragon launched its first version of Handset Assistant, for jail-broken iPhones, intending to help users manage their devices better, in October 2007. But not many people really knew about it until Apple's App Store launched globally in July 2008. A month later, Net Dragon introduced the second version of Handset Assistant for the iPhone and for the first time included software, ring tones and wallpapers on the platform for users to download.

A de facto free-iPhone-app store

91.com aggregates and categorizes cracked iPhone applications from various sites and offers them on its portal free, with detailed download manuals offered. More than 10,000 iPhone applications are available on 91's platform, with over 260 million accumulated downloads by March 2010. Apart from cracked applications that account for the majority of apps available, other types of applications have also made their way to 91.com:

- Unofficial apps from local developers.
- Social-networking and instant-messaging tools, through cooperation with other companies, such as QQ, the most popular IM tool in China.

- Apps developed internally by Net Dragon, such as Panda Reader, 91 Farm (social-networking community games), 91 Notepad and 91 Fortune-telling.
- Apps purchased by Net Dragon from individual developers.

It should be noted that the company puts out a disclaimer that it only “shares” cracked apps made available by individuals and is not making a profit by doing so. It does not crack software itself, nor does it charge for downloads of hacked software and applications. What it does is merely provide a platform for sharing hacked software and applications. Apple has turned a blind eye to it, and only when apps from well-known companies are made available on 91.com will Apple interfere and demand that they be removed.

The immense number of free apps has quickly increased 91’s popularity among users and made it the most influential app store for jail-broken iPhones in China. To build up its popularity, the company has even provided free Handset Assistant installation packs to iPhone distributors in some local electronics malls to encourage them to install the software for consumers at the point of purchase. The appeal of installing numerous applications free has served as an effective tool to entice people to buy iPhones. Users pay a nominal fee to distributors for jail-breaking the phone, which enables users to download as much software and as many apps as they want from 91.com. It is especially popular in China, because users there have shown little willingness to pay for apps because of slack copyright management in the country, not to mention the fact that many do not even have a credit card, which is required for registering with Apple’s App Store.

The availability of 91.com at the point of distribution has further enhanced 91 Handset Assistant’s reputation as a must-have tool after jail-breaking iPhones. According to the company, the number of iPhone-based 91 Handset Assistant users has increased dramatically, from 800,000 at end-2008 to over 2 million at end-2009 and well over 3 million in 2010, compared with China Unicom’s iPhone user base of just over a million at end-2010.

Business model

91.com’s iPhone portal offers only six paid apps, priced at CNY2-5 (US\$0.30-0.75), none of which has been downloaded very many times.

91 offers most apps free, mainly to drive a large number of iPhone users to its platform, which can be translated into monetizing opportunities, such as mobile advertising. The site also serves as a channel to promote 91’s self-developed apps, which are made available on noticeable places on its website and software-management interface after Handset Assistant software has been installed. The traffic to its platform also encourages downloading of its own mobile games, which will provide opportunities for the company to charge for virtual items when the user base is large and sticky enough.

It is also worth noting that the iPhone is not the only platform on which Handset Assistant is available. It is also attracting a large amount of user traffic through other smartphone platforms, especially Android.

Net Dragon has stable revenue from its online-gaming business, which provides a solid financial basis for running the handset portal. The advertising revenue 91.com generates is nominal.

Informa viewpoint

There are about 6 million iPhone users in China (of whom 1 million are China Unicom customers), an estimated half of whom have jail-broken their iPhones. The high number of jail-broken iPhones has to some extent affected the potential number of purchases of apps from Apple.

Although it’s still early, the company hopes that the increasing traffic to its site and downloads of the device-manager software will not only drive traffic to its mobile gaming and online-gaming sites but also create other monetizing opportunities, such as advertising and revenue-sharing opportunities with third-party mobile payment providers by serving as a payment channel.

91.com also hopes to become a leading mobile-app-distribution channel for the Android platform. A key move 91 has made is merging its mobile business with another well-known Android app site. The new company has attracted over US\$8 million in venture-capital investment. 91.com serves as an attractive and effective distribution platform for

local developers, especially for those whose business model is advertising-based rather than purchasing-based and who are eager to promote their apps to a large number of users.

Vendors build a case for small-cell architectures

Julian Bright

- Major vendors, including Alcatel-Lucent, Ericsson, NEC and Huawei, are building a strong case for small cell architectures to be deployed for both 3G and LTE, saying they offer significant commercial and performance benefits.
- A number of operators are said to be on the verge of significant deployments of small cells, though there are potential problems with integrating them into the macro-cell environment.
- Self-organizing networks are expected to play a key supporting role in areas such as interference management, network integration and operations and maintenance.

The case for deploying smaller cell configurations – such as picocells, microcells and femtocells – to supplement traditional macro-cell-network architectures, both for LTE and existing 3G networks, is becoming more compelling, according to some leading network-equipment vendors. The vendors say small cell architectures can improve capacity and performance while circumventing the need to deploy cumbersome and expensive new base stations and can give operators commercial advantages, such as a boost in market share.

Alcatel-Lucent has been the most vocal major vendor on this topic, saying that small cells are a significant, disruptive trend in networks and that it already has 14 commercial contracts and 20 trials in place for small cell deployments. The company says that in the coming months, the ways in which small cells can improve network performance will become apparent, and more access points will appear in streets and public access areas such as shopping malls.

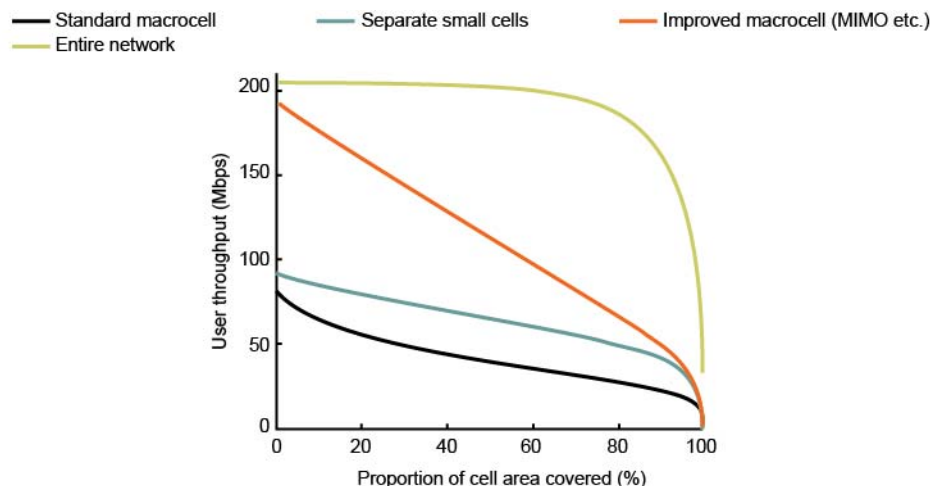
The vendor says small-radius cells can be used to provide a second layer of coverage in WCDMA and LTE networks, resulting in higher throughput and data rates for the end-user and improved performance at the cell edge. They also use less energy than macrocells and have a far smaller physical footprint. A 70kg base station using 5kW of power can be replaced by a cell a few inches square, which can be hidden from view.

Compared with alternative approaches such as MIMO, making cells smaller is the fastest and most effective way of increasing an operator's capacity, Alcatel-Lucent says. The company has estimated that using a small-cell approach could save it 12-50% on capex and 5-10% on opex, based on the total cost of rolling out new RNCs and new cell sites.

Ericsson has recently outlined a small-cell strategy as part of its heterogeneous-network concept, which incorporates microcell and picocell technologies alongside less-complex relay base stations that pass information back to the macro base station. The technology offers might higher levels of throughput to the cell edge, unlike a standard macrocell environment.

The addition of separate small cells can boost performance relative to a standard macronetwork, the vendor says. When combined with a heterogeneous network with additional carriers and features such as MIMO, which are already being used to create an "improved macro" level of performance, small cells can drastically reduce the deterioration in performance experienced as the distance from the base station increases, Ericsson says (see fig. 1).

Fig. 1: Coverage of heterogeneous-network components, by cell type



Source: Ericsson

An important element of Ericsson’s approach is that it avoids allocating specific frequency bands to small cells that are introduced into the network, thus making better use of the available spectrum and removing the risk that overall network performance will deteriorate. Ensuring co-ordination of small cells with the macro layer also allows all cells to make full use of the available spectrum resources, says the vendor.

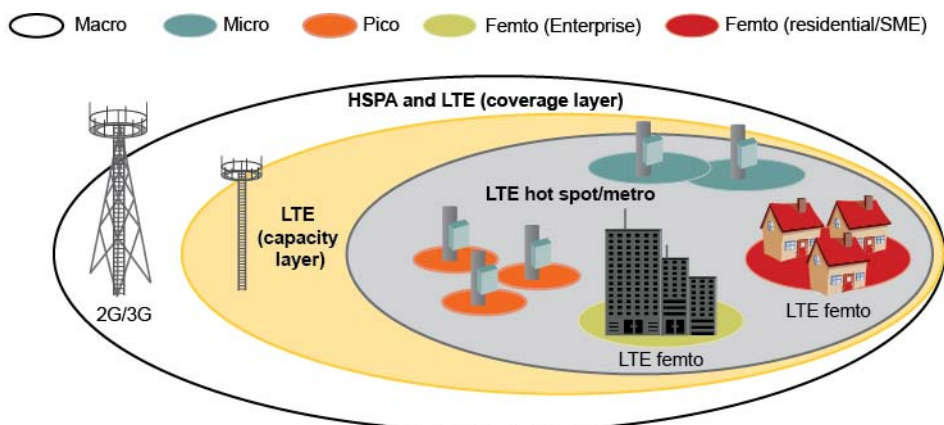
Ericsson expects to see small-cell 3GPP systems deployed in parallel with public Wi-Fi hot spots, which it acknowledges can provide superior coverage in some in-building environments, such as shopping malls, where spectrum usage is more controlled. Coordinated radio systems of the kind proposed in its heterogeneous network model are better suited to an uncontrolled environment where spectrum use needs to be synchronized, however.

Small cells and LTE

Also backing the small-cell trend is NEC. The company says that for LTE, macrocell deployment is not an option, since it costs too much and will not offer the necessary capacity and performance, particularly since data-traffic revenues are generated mostly through hot spots and in-building use.

NEC envisages a small-cell overlay network for LTE providing a capacity and performance layer, with microcell and picocell coverage for metro hot spots complemented by femtocells in residences and small and medium-sized enterprises. Macronetwork coverage is already provided by 2G and 3G networks, the vendor says (see fig. 2). It describes small cells as sustainable, fast to deploy, cheap and easy to install and operate. It is also possible for operators to start small and build up the network as the number of users and/or traffic increases.

Fig. 2: Small-cell architecture for LTE



Source: NEC

Although factors such as coding and modulation techniques and MIMO can boost capacity, limited spectrum availability means that frequency reuse is the key to keeping up with an increase in traffic, NEC says. Small cells can reuse frequencies, providing higher average and peak cell-edge throughput, improving the network's quality of service and giving a better user experience.

The vendor says that for the same density of traffic, its small-cell base station offers an average of 2.5 times the user-downlink data rate of a medium-sized macrocell and up to three times the downlink data rate at the cell edge. For a mean data rate of 10Mbps, throughput is about four times that of a macrocell. Improvements in uplink performance are even greater, the company says, and the benefits of small cells rise with the size of the macrocells being compared.

A mixed macro/small-cell architecture offers about 2.5 times the user data rate of a pure macrocell environment, providing 1.8 times the capacity for a mean data rate of 10Mbps per user. An operator deploying small cells will see a significant improvement in terms of cost-per-bit-per-square-km, NEC says.

Huawei has produced similar calculations. Using simulations, the vendor found that a network consisting of seven macrocells and 23 microcells offered an average of 50% more throughput at the cell edge than a macro-only model, and total throughput was two-and-a-quarter times higher.

Smart antenna systems

Ericsson says macronetwork base stations will continue to be a volume product for the company, but as the radio platform evolves toward a multistandard environment combining 2G, 3G and 4G, parallel developments in integrated antenna systems are also favoring the move towards small cell architectures.

The evolution toward a multistandard radio platform is bringing about a move away from passive antenna systems to the use of active antennas that are more closely integrated with the radio platform, an approach that improves performance, decreases power consumption and enables the integration of an active, multistandard integrated antenna on top of the existing 2G/3G infrastructure, with embedded 4G capability.

This approach in turn opens up the possibility of developing a more distributed pattern of antenna deployments, since the antennas are embedded with the radio. It is thus possible to develop a number of different small-cell form factors.

Deployment challenges and SONs

Mobile operators, such as Canada's Telus, acknowledge that there is a need for smaller cells for both indoor and outdoor coverage as part of a 4G rollout. Despite their benefits, however, small cells pose a number of challenges for operators.

In a presentation at Informa's LTE Americas conference in Dallas in November, Telus said that key areas to be addressed include interference management in a macrocell environment; the integration, operation and management of small cells in an existing network; and handover and load-balancing performance and optimization (see fig. 3). It also cited as a concern hardware cost and dimensions – in cases where equipment is sited on street furniture such as lampposts, for example – along with the difficulty of determining appropriate investment in an environment of uncertain local demand.

Fig. 3: Challenges in deploying small-cell networks

Interference management <ul style="list-style-type: none"> • Outdoor: picocell/microcell and macrocell interference • Indoor: femtocell/picocell interference in dense deployments
Handover and load-balancing performance and optimization
Integration, operation and management of small cells within existing network
Hardware <ul style="list-style-type: none"> • Antenna size (eg. when sited on lampposts) • Equipment dimensions, mounting options, power supply • Upgradeability and future-proofing
Cost <ul style="list-style-type: none"> • Equipment • Backhaul • Installation, maintenance and upgrades
Difficulty of aligning investment with uncertain local demand
Aligning small-cell strategy with heterogeneous networks <ul style="list-style-type: none"> • Offload to 3GPP and to non-3GPP technologies, such as Wi-Fi • Traffic management and seamless user experience
<i>Source: Telus</i>

Vendors say self-organizing-network (SON) capabilities, such as automatic configuration of the cell at power-up, are key requirements in creating and managing small-cell networks. Alcatel-Lucent says its technology incorporates a number of SON features developed by Bell Labs, including the capability to periodically monitor, update and optimize the cell's neighbor-relation lists and handover parameters, and continuous adjustment of the cell's transmission power to the surrounding environment to optimize coverage.

Smaller cells also offer the possibility of "sculpting" the radio pattern so that it is tailored to a small area, such as a single building, Alcatel-Lucent says.

Commercial opportunity

The commercial opportunities arise where aspects such as location come into play, Alcatel-Lucent says. Since far fewer users are likely to be connected to a small cell than a larger one, making cells smaller "personalizes" the bandwidth, making it easier to pinpoint the subscriber's location and offer relevant support services, such as mobile advertising. Classical macronetwork base stations don't offer the same opportunities to profit from such services, the vendor says.

Alcatel-Lucent also says that a number of its customers are looking for a smarter way to handle offload than deploying Wi-Fi, which it says picks up a high proportion of traffic only because of the shortcomings of cellular networks. Not only can Wi-Fi be an expensive option for providing access in the street, given the complex software required in access points, but any benefit from the higher data rates offered by Wi-Fi will be largely undone by constraints in the backhaul.

The company says a number of cable operators that are considering entering the market are looking at wholly femtocell-based LTE rollouts, raising the possibility that fixed-line operators could act as wholesale providers of femto-based offload and backhaul for cellular operators.

Informa viewpoint

The growing consensus among the major vendors on the subject of small-cell architectures reflects a growing conviction that this will be the next significant trend in the network-infrastructure supply market.

The traditional market for large-scale, macronetwork base stations will continue to dominate, with developments such as multiradio platforms and software-defined radio continuing to have a considerable impact. The trends toward low-power, compact base-station form factors and integrated active antenna technology suggest that small-cell deployments will become more important in terms of product development.

Ericsson's backing for this approach is significant, since the vendor is one of the leading players in the market for large-scale macrocell products, and the move is a significant new direction

for the company. Other vendors, such as NEC and Alcatel-Lucent, have already begun to establish a presence in the femtocell market and are looking to evolve the technology beyond its current consumer and enterprise focus. Alcatel-Lucent can also be expected to emphasize its strength in SONs via its Bell Labs facility.

The trend toward small cells also signals a switch in emphasis from coverage to end-user performance, and the message from vendors will reflect the belief that these new network architectures can not only improve network performance but also bring significant commercial benefits in terms of customer retention and targeted services.

Asia Pacific, FTTx subscriptions by country, 3Q10

	3Q09	4Q09	1Q10	2Q10	3Q10	Yearly change	Yearly change (%)
Australia	22,000	24,000	26,000	28,000	30,000	8,000	36.36
Bangladesh	4,500	5,000	5,500	6,000	6,500	2,000	44.44
China	10,350,000	11,200,000	13,500,000	16,500,000	18,600,000	8,250,000	79.71
Hong Kong	1,137,000	1,180,000	1,260,000	1,310,000	1,375,000	238,000	20.93
India	36,920	36,800	35,600	28,420	28,640	-8,280	-22.43
Indonesia	5,100	5,700	6,300	6,900	7,500	2,400	47.06
Japan	16,500,000	17,196,000	17,789,000	18,569,000	19,349,000	2,849,000	17.27
Korea	7,568,000	7,977,000	8,330,620	8,736,220	9,091,140	1,523,140	20.13
Nepal	700	800	800	850	900	200	28.57
Pakistan	5,200	6,000	15,400	17,500	19,600	14,400	276.92
Singapore	5,490	5,200	5,100	4,400	6,800	1,310	23.86
Taiwan	1,507,000	1,638,000	1,742,000	1,853,000	1,962,000	455,000	30.19
Vietnam	30,930	41,100	53,300	64,700	71,000	40,070	129.55
Total subscriptions	37,172,840	39,315,600	42,769,620	47,124,990	50,548,080	13,375,240	35.98

Source: Informa Telecoms & Media

Asia Pacific, FTTx subscriptions by operator, 3Q10

	3Q09	4Q09	1Q10	2Q10	3Q10	Yearly change	Yearly change (%)
Australia							
e-wire	2,700	2,800	2,900	3,000	3,100	400	14.81
Fuzeconnect	1,000	1,100	1,200	1,300	1,400	400	40.00
OptiComm	5,500	6,200	6,900	7,600	8,200	2,700	49.09
Pivit	4,600	5,000	5,300	5,700	6,100	1,500	32.61
Telstra	3,600	4,200	4,800	5,400	6,000	2,400	66.67
TransACT	600	700	800	900	1,000	400	66.67
Unspecified Operator(s)	4,000	4,000	4,100	4,100	4,200	200	5.00
Bangladesh							
Unspecified Operator(s)	4,500	5,000	5,500	6,000	6,500	2,000	44.44
China							
China Telecom	6,900,000	7,500,000	9,000,000	10,500,000	11,500,000	4,600,000	66.67
China Unicom	3,450,000	3,700,000	4,500,000	6,000,000	7,100,000	3,650,000	105.80
Hong Kong							
City Telecom	392,000	420,000	465,000	490,000	530,000	138,000	35.20
HGC	275,000	280,000	285,000	290,000	295,000	20,000	7.27
PCCW	470,000	480,000	510,000	530,000	550,000	80,000	17.02
India							
Hathway	0	560	570	580	590	590	n/a
Tata Communications	20,000	19,160	18,000	18,000	18,000	-2,000	-10.00
Unspecified Operator(s)	16,920	17,080	17,030	9,840	10,050	-6,870	-40.60
Indonesia							
max3	5,100	5,700	6,300	6,900	7,500	2,400	47.06
Japan							
Energia Communications	129,000	134,000	138,000	287,500	149,000	20,000	15.50
K-Opticom	927,000	961,000	1,007,000	1,052,000	1,090,000	163,000	17.58
KDDI	1,319,000	1,426,000	1,513,000	1,637,000	1,741,000	422,000	31.99
NTT East	6,953,000	7,246,000	7,530,000	7,873,000	8,088,000	1,135,000	16.32
NTT West	5,325,000	5,533,000	5,718,000	5,967,000	6,152,000	827,000	15.53
QNet	272,000	277,000	283,000	289,000	294,800	22,800	8.38
STNet	80,000	85,000	90,000	95,000	100,000	20,000	25.00
Unspecified Operator(s)	699,000	715,800	675,900	518,527	868,341	169,341	24.23
Usen	796,000	818,200	834,100	849,973	865,859	69,859	8.78
Nepal							
Unspecified Operator(s)	700	800	800	850	900	200	28.57
Pakistan							
NayaTel	3,200	3,300	3,400	3,500	3,600	400	12.50
Wateen Telecom	0	1,000	12,000	14,000	16,000	16,000	n/a
Singapore							
Unspecified Operator(s)	5,490	5,200	5,100	4,400	6,800	1,310	23.86
South Korea							
LG U+	1,688,050	1,807,643	1,615,040	1,630,040	1,645,030	-43,020	-2.55
KT Corp	3,679,000	3,947,000	4,194,000	4,455,000	4,719,400	1,040,400	28.28
SK Broadband	1,978,000	2,058,000	2,124,000	2,156,000	2,146,000	168,000	8.49
Unspecified Operator(s)	222,950	164,357	397,580	495,180	580,710	357,760	160.47
Taiwan							
Chunghwa Telecom	1,507,000	1,638,000	1,742,000	1,853,000	1,962,000	455,000	30.19
Vietnam							
FPT	30,000	40,000	50,000	60,000	65,000	35,000	116.67
Viettel	930	1,100	3,300	4,700	6,000	5,070	545.16

Source: Informa Telecoms & Media

News

Australia

Telstra partners Ericsson for LTE deployment

Leading mobile operator Telstra has awarded an infrastructure contract to Sweden-based vendor, Ericsson, which will see its existing HSPA+ Next G network being upgraded to support LTE. The upgrade will be carried out in central business districts of all state capital cities as well as in selected regional centres by the end of 2011. In addition to the installation of LTE radio base stations, Ericsson will also be responsible for upgrading and expanding Telstra's packet core network to Evolved Packet Core network.

China

China Mobile in strategic agreement with Vodafone

China Mobile Limited and Vodafone Group Plc signed a strategic agreement at Mobile World Congress that will see the operators continuing cooperation in various business areas, as well as promote converged FDD/TDD LTE technology and LTE terminal development. Vodafone sold its entire 3.2% interest in China Mobile Limited in Sept 2010, as part of its strategy to reduce its non-core overseas assets following investor pressure.

ZTE aims for strong smartphone sales

Shenzhen-based vendor ZTE expects total handset shipment in 2011 to grow by 30%-40% over last year. Focused on the Android platform, the company also aims for five-fold growth in its smartphone sales from 2 million in 2010 to over 10 million in 2011. ZTE will continue to focus on the ODM and dual-carrier strategy with Tier-1 operators in Europe and North America and build brand awareness in Tier-2 operators.

India

Reliance sees fall in wireless revenue

Reliance Communications saw its gross wireless revenue fall 2.3% from INR41.61 billion (US\$918.13 million) in the quarter ending 30 September 2010 to INR40.64 billion in the quarter ending 31 December 2010. Wireless EBITDA fell 2.6% from INR12.10 billion in 3Q10 to INR11.79 billion in 4Q10. Revenue and EBITDA was affected by a fall in the number of wireless minutes of use from a monthly average of 94.60 billion minutes in 3Q10 to 91.50 billion in 4Q10. The wireless ARPU fell from INR122 in 3Q10 to INR111 in 4Q10. Consolidated group net profit rose from INR4.46 billion in 3Q10 to INR4.80 billion in 4Q10.

ICICI Bank signs MoU with Aircel for financial inclusion

Private sector bank ICICI Bank and GSM/WCDMA operator Aircel have announced a joint initiative to drive financial inclusion. Under the MoU ICICI Bank will offer, in partnership with Aircel, various financial products including savings accounts, prepaid instruments and credit products. The partnership is expected to bring the unbanked and underbanked population into the organised financial services framework and assist in furthering the electronic payments market in In

TRAI details MNP activity

The Telecom Regulatory Authority of India (TRAI) has published data on the number of requests to port numbers. MNP in India first launched on Nov. 25 in Haryana and then rolled out across the country from Jan. 20. Up to Feb. 5. 1.71 million have submitted requests to different service providers for porting their mobile number. 229,000 of these requests relate to the telecom region of Haryana. The next highest numbers are in the Gujarat telecom region (167,000 requests) and Rajasthan telecom region (144,000 requests). Some requests have been rejected. The major reasons for rejections are the incorrect unique porting code being submitted by the subscriber, the non-completion of 90 days from the activation of the mobile number, existing contractual obligations and the non-payment of outstanding bills.

Indonesia

XL Axiata selects Mobixell's converged data traffic management solution

Third-ranked mobile operator XL Axiata has chosen Mobixell, a global provider of rich-media mobile data solutions, to help it deploy a single, centralised platform to support its mobile data services in order to optimise traffic. On top of consolidating multiple services onto a single platform to enable content filtering, antivirus and enhanced mobile-advertising capabilities, the installed system, Mobixell Seamless Access, also allows XL Axiata's subscribers to

access high-quality mobile video through its data and video optimisation capabilities. The deployment of Mobixell Seamless Access is part of XL Axiata's strategy to better serve the needs of its rapidly growing smartphone user base.

Japan

E-Mobile taps Ericsson for managed services, network upgrade

Data-focused operator E-Mobile has signed a managed services contract with Ericsson. Increased use of smartphones and advanced mobile applications has significantly boosted E-Mobile's data traffic, with the operator recently tapping the Swedish vendor to upgrade to 42MB / sec HSPA technology in Japan's metropolitan areas, such as Kanto, Tokai and Kinki. E-Mobile had around 3 million mobile broadband subs at end-Jan.

NTT DoCoMo, KT Corp to launch cross-border NFC services

Leading mobile operator NTT DoCoMo and Korea's second largest mobile company, KT Corp, will develop new cross-border services - including mobile payments, mass-transit ticket and promotional virtual coupons - that are based on near-field communication technologies (NFC). The operators are presently jointly determining common NFC specifications that will be built into their devices, networks and billing platforms in order to enable them to deliver a seamless service to customers travelling between Japan and Korea. In preparation for the service launch, both companies will accelerate the development of their existing infrastructures and start conversations with NFC-based service providers in different industries to encourage their participation in the project.

NTT DoCoMo to commence field trials of LTE-Advanced

NTT DoCoMo plans to begin field experiments of LTE-Advanced - a new version of LTE, which it considers to be a true 4G technology - under real mobile operating conditions in the cities of Yokosuka and Sagami-hara. The company was pre-licensed by the national telecommunications regulator to conduct the trial in late January 2011 and is currently awaiting the actual trial license. NTT DoCoMo was able to achieve a downlink transmission speed of approximately 1 Gbps and an uplink speed of 200 Mbps in previous tests using radio environment simulators in its R&D center. At present, standardization of LTE-Advanced is being finalized by the 3rd Generation Partnership Project (3GPP).

New Zealand

2degrees details network investment plans

Third-ranked mobile operator 2degrees has announced a network expansion plan that will see it injecting more than NZ\$100 million (US\$77 million) into its infrastructure build-out programme, which will bring cumulative total network spend to NZ\$400 million. Huawei has been chosen as the vendor to carry out related network enhancement works. The move represents an attempt by the company to better accommodate the growing demands for smartphones and other mobile-broadband devices.

Philippines

Smart launches new Android device

Top mobile operator Smart Communications has unveiled a new Android-based smartphone, Netphone, which features widgets from the Wholesale Application Community (WAC). WAC is a project supported by leading global operators - including US-based AT&T and NTT DoCoMo of Japan - whose aim is to develop a unified open platform that allows developers to build an application once, and deploy it on any network, device and operating system.

Using a proprietary software management solution from Red Bend, a global mobile software company, Smart will be able to manage WAC-compliant widgets over the air and independently of the handset's firmware. The company believes that this greater control over the device will enable it to more quickly deploy new widgets and applications to create new, relevant revenue-generating services that can be pushed directly to Netphone users.

Singapore

SingTel reports higher revenue, lower profit

SingTel saw its operating revenue rise by 8.3% year-on-year to SGD13.4 billion (US\$10.5 billion) in the nine-month period ending December 2010. However, its net profit declined by 2% to SGD2.8 billion over the same period. Although revenue contributions from its main operations in Singapore and Australia, due to strong growth in the mobile division in both markets, a fall in its shares of pre-tax profits from overseas associates of nearly 12% led to an overall decline in profit. This was a result of net loss from the financing and transaction costs related to acquisition of Bharti Africa as well as lower profits for Telkomsel in Indonesia and Globe Telecom in Philippines.

South Korea

SK Telecom eyes July 2011 for LTE service launch

SK Telecom has chosen Nokia Siemens Network to supply the infrastructure for its LTE network, on which the company expects to begin offering commercial mobile service in July 2011. The agreement with Nokia includes NetAct network management system and network implementation and care services in addition to the provision and installation of LTE base stations. The service will initially be introduced in Seoul at launch, but coverage will expand to other metropolitan areas by the end of 2012. Nationwide coverage is scheduled for year-end 2013.

Taiwan

FET details smartphone stats in Jan

FarEasTone (FET) revealed that smartphone sales accounted for 55% of its total handset sales in January 2011. The operator forecasts that smartphones will represent over 50% of its sales for 2011. Similarly, the other two Taiwan mobile operators are also seeing smartphones represent over 40% of their 1Q11 sales.

Thailand

DTAC to be allowed to offer commercial 3G service

State-owned telecoms company CAT Telecom has granted an approval to DTAC, the market's second largest mobile operator, to start providing 3G wireless broadband service over the 850MHz spectrum on a commercial basis. CAT was previously heavily criticised for quickly striking a deal with DTAC's smaller rival, True Move, to provide a nation-wide HSPA access through a network leasing and capacity wholesale agreement. The new development is seen as an attempt to rectify the situation and level the playing field for operators.

Mobile broadband hype is muddying the broadband waters, says Tony Brown

Tony Brown

Over the past couple of years, I have been fortunate to be asked to chair a number of Informa Telecoms & Media conferences around the world. It is a role that I thoroughly enjoy, though sometimes things can go somewhat awry.

One of my most embarrassing moments as a chairman was in Kuala Lumpur last July at the South East AsiaCom event, when Ali Tabassi, COO of Malaysian WiMAX operator YTL Communications, well and truly turned the tables on me when I was chairing a panel session.

Aware that YTL was eager to launch video-telephony services on its yet-to-launch network, I asked Tabassi how he could be so confident about video telephony when it had been such a monumental failure on 3G networks. Quick as a flash, Tabassi responded, "Because 3G isn't broadband." His tone suggested that my question was barely worthy of a kindergarten pupil, as the audience guffawed at his razor-sharp response.

The truth hurts

Of course, Tabassi's jibe was not malevolent. He was merely making the argument that the kind of speeds that would be available on his company's WiMAX services would truly represent a broadband experience, compared with the woeful performance of many WCDMA-based networks.

Funnily enough, I had been thinking along much the same lines while covering the Asia Pacific broadband market, because, quite frankly, talking to a South Korean operator planning 1Gbps services and then to a Bangladeshi operator that is struggling to offer 1Mbps, you do start to wonder what "broadband" actually means.

Of course, we know all the ITU definition of broadband: anything over 256Kbps. But the truth is that any operator trying to pass those speeds off as "broadband" in any semideveloped market would be laughed out of the market.

Mobile broadband clouding the issue

I guess a lot of people would view this as an exercise in semantics, arguing that the term "broadband" should be a broad enough church to cover anything from 3G to WDM-PON and that there is no need to further confuse the issue. I could not disagree more.

The truth is that the arrival of mobile broadband over the past half-decade has seriously muddied the semantic waters, because consumers and even governments have become obsessed with speed over performance.

A perfect example of this has happened here in Australia, where the many vociferous opponents of the government-run National Broadband Network (NBN) have used Telstra's announcement that it will launch commercial LTE services by year-end as an argument that the NBN should be scrapped.

"Why do we need the NBN when wireless will deliver the same speeds at much lower costs?" they say, with their arguments shamefully backed by Malcolm Turnbull, the opposition shadow minister for communications, who really should know better.

These crazy arguments that LTE – or even proper 4G, when it finally arrives – will remove the need for fixed-line broadband networks are given weight because vendors and operators only ever talk about the peak downlink speeds the technologies offer, never what the network will actually be capable of in a commercial setting.

The need for Frank Luntz

This is where the supporters of fiber-based network rollouts really need to hire somebody like US advertising guru Frank Luntz, who has worked assiduously for the US Republican Party on numerous campaigns, most famously turning “global warming” into “climate change” in a successful effort to redefine the terms of the debate.

In the broadband market at the moment, the glitz and glamour of mobile broadband, helped significantly by the surging demand for tablet devices and smartphones, has persuaded many consumers and even some governments that mobile broadband is the future and that fiber networks are unnecessary and too expensive.

As a result, fiber-network vendors really do need to change the terms of the debate away from a speed-measuring exercise – which is effectively meaningless anyway – and move it toward looking at what services broadband networks can actually deliver in a commercial environment.

This is where the debate over what broadband really is should be headed, because the truth is that LTE and 4G are still primarily about delivering mobility above all else. The broadband part of the equation is very much a secondary consideration.

By contrast, fiber-based networks are all about delivering networks that can deliver consistent 100Mbps downlink speeds and beyond that facilitate any number of applications, some of which we are not even aware of yet.

The end game

I am aware that a missive such as this is very much preaching to the converted and that few people reading this will actually believe that mobile broadband can in any way replace the need for fiber-based networks, especially in developed markets.

However, the reality is that the received wisdom is already being formed among consumers that mobile broadband means high speeds, low prices and cheap deployments, while fiber networks equate to time-consuming and cumbersome rollouts and high prices – and that is not a flattering comparison.

This is exactly why it is time for the industry to start looking again at how to define broadband, because in all honesty it is impossible to seriously compare a fiber-based 100Mbps connection with even a 40Mbps HSPA+ connection. They do not offer the same thing at all.

The backers of fiber-based networks need to start thinking about how to change the public’s thinking about broadband access and to begin driving home the differences between LTE/4G and fiber networks in the public consciousness.

Me? Well, if I had the answers I would be up there with the Frank Luntzes of the world, pulling in the big dollars and living the good life. All I know is that the current debate is giving mobile broadband way more credit than it is actually due – and that can only be a bad thing.

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