



EUROPE WARMES TO 3G

In most developed European markets, 3G networks are now a reality. We look at the variety of services and marketing strategies on offer

The widely anticipated rollout of 3G services in Europe's major markets has begun in earnest. Sixteen new commercial 3G networks came on stream during the three months between the beginning of May and the end of July this year. By August, 30 W-CDMA-based networks in 13 countries were offering 3G connectivity either via handsets or data cards.*

But behind the increased activity doubts still persist among operators about how best to exploit the new technology and what service play will help them drive the maximum uptake.

'There's generally a more positive view about launching services, but everybody's still cautious,' says Mark Heath, director of research at Cambridge, UK-based analyst, Sound Partners. 'I think there's still uncertainty about the applications and the demand.'

The latter is reflected in the steady rather than spectacular growth in most markets, although some operators are claiming significant gains. Hutchison Whampoa reported a strong showing in July at its UK

mobile subsidiary 3, where 275,000 new customers were added in one month. Overall, Hutchison says it now has upwards of 3.2 million 3G customers worldwide, with around 1.2 million of those in the UK.

Customers appear to be making use of the services too. Average revenue per user (ARPU) for the first seven months of the year among 3's UK users was a healthy £43.22 (around US\$77) per month, says Hutchison.

The more recently launched data card services have seen modest take-up so far. Vodafone, which has been rolling out its 3G Mobile Connect card service across its companies in Europe, announced that by mid-2004 over 50,000 of the cards had been sold groupwide in the ten markets where services are available.

Give away voice

However, rather than position 3G as a premium service, operators such as 3 have been focussing on developing attractive tariff packages with the emphasis on bundled voice minutes, in a direct attempt to lure customers onto the new services and away from competing GSM providers.

For example, Hutchison's Swedish joint venture, Hi3G Access, entered the market with an offer of free voice and video calling between customers on its network for a SEK99.00 (US\$13.37) per month subscription.

With 3G services having been available for over a year, there's some evidence that this approach is succeeding. By July this year, a Citigroup report estimated that Hi3G was adding around 15,000 subscribers per week, and concluded that the service was 'gaining traction'.

At the same time, Hi3G's marketing director Frederick Landahl was claiming that aggressive pricing by the 3G providers was 'hurting the GSM operators'.

As if to prove the point, Telia Mobile responded in July by removing per-minute charging for its GSM subscribers in favour of a flat rate price-per-call. Significantly, this announcement also came just two days ahead of the launch of Vodafone's 'Live!' 3G services, when it too entered the market with a promotional offer that included up to 120 free minutes for video calls each month to all networks in Sweden.

In the UK, 3 has adopted a similar strategy to its Swedish counterpart, going head-to-head against the GSM providers over the summer with a major advertising offensive, based on its competitive price-per-minute rates for voice services. In September, 3 added bundled text minutes to its voice packages, and has pledged to chase aggressively every customer that spends more than £15 (US\$27) per month. ▶

Quality or quantity

But aside from building customer awareness, Sweden's 3G operators have other concerns. They are under pressure from the regulator to achieve the stringent coverage requirements enshrined in their licences, and are threatened with significant financial penalties if they fail.

In June all four operators, Hi3G, Telia Sonera, Vodafone and Tele2, united in a proposal to co-ordinate their rollout plans, citing the environmental benefits resulting from lower signal strength and fewer 3G masts.

The operators now look likely to win an extension until December 2007 to their required target of 99.98 per cent population coverage (approximately 8.86 million), originally set for the end of 2003.

One low-cost solution that the 3G operators are rumoured to be considering is the deployment of CDMA technology at 450MHz. This low frequency band technology could help them to build out coverage in Sweden's rural areas, while still supporting high-speed CDMA20001x services. A key advantage is that each CDMA 450 base station can cover a wider geographic area than W-CDMA 3G systems.

A planned auction by the Swedish regulator is expected to lead to the award of a licence later this year, and one operator that has already expressed an interest is Nordisk Mobiltelefon, which has already obtained a licence to deploy CDMA 450 in Norway.

The company has estimated that

Sweden has a potential customer base of 500,000, and that around two billion Swedish Kronor would need to be invested to build a network with 1000 to 1200 base stations.

In fact, achieving the required degree of national coverage will be an ongoing issue for 3G operators for some time to come, according to Mike Pinches, chairman of 3G mobile network optimisation specialist, Arieso. Operators in the

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UK have typically built around 3000 3G sites so far, but may only be around one third of the way to completing their national network rollout, Pinches suggests.

‘Our view is they will need at least 10,000 sites to achieve reasonable national coverage,’ says Pinches. ‘In ten year’s time it wouldn’t surprise me if it’s not twice that. So there’s plenty of investment still required.’

Orange reports that 6300 sites in the UK have been acquired for 3G installation, of which 3000 already

have equipment installed.

Launching Orange’s 3G data card service in the UK in July, executive vice president of Orange UK, John Allwood, conceded that the company was behind its major competitors such as Vodafone, and couldn’t claim to have the UK’s biggest 3G network – credit for which would probably go to 3.

But CEO Sanjiv Ahuja claimed that the company had ‘the UK’s largest integrated 3G network’ offering a seamless experience between 3G and 2G. Orange says it has 66 per cent population coverage with 3G today, and aims to cover 80 per cent of the UK population by the end of 2005.

Allwood says that the company had learned lessons from its colleagues at France Telecom-owned internet provider Wannadoo, where broadband users were downloading 50 per cent more data than narrowband users. Lessons learned from the UK 3G service would also be applied to the company’s launch in France this autumn, he said.

Meanwhile Vodafone is now offering 3G services in some form in Ireland, Italy, Germany, Greece, Portugal, Spain, the Netherlands and the UK. The company’s Live! branded services are already available over 3G in countries including Spain, Greece and the UK.

In Spain, the new service is initially available in 22 main cities, while in Greece services were made available in time for this summer’s Olympic Games. The network covers more than 25 per cent of the Greek population, including all the venues where games took place and all major access roads.

In September, Vodafone claimed to have become the first operator in the Netherlands to offer UMTS coverage to more than half of the Dutch population, and promised to double the number of Dutch cities with UMTS coverage by April 2005.

Balancing 3G and WiFi

As a growing number of 3G operators choose to launch 3G services alongside public wireless LAN (WLAN), there are also a number of technical and commercial issues still to be tackled.

The combined 3G/WLAN approach is being widely adopted in markets such as the UK, where services are aimed primarily at the travelling business person needing high speed access to the internet and corporate networks while on the move.

Here again, pricing is proving a key competitive weapon. T-Mobile has recently announced its 3G data cards combined with the extension of its WiFi hotspot access points across the country. The T-Mobile offer includes unlimited usage of both the data cards and WiFi access on a tariff package costing £199 (US\$356) plus a monthly fee of £70 (US\$125). This includes unlimited data access regardless of whether usage is on 3G, GPRS or WiFi.

In September, O2 announced a similar service, but included a pricing plan that allows users to buy the cards as shared bundles with megabyte-based packages, that can be used across an entire workforce. O2 has teamed up with WiFi providers Cloud and BT Openzone, as well as WiFi aggregator Excilan, to offer the service.

O2 says that initially 3G services will

be priced at the same rate as GPRS, with packages beginning at £30 (around US\$54) for 128 megabytes of data. 'We have just chosen so far to keep the 3G proposition technology neutral, and based on our trials simplicity was a key call in terms of feedback,' said an O2 spokesman.

Excilan will provide secure access to the public WLAN hotspot service via an authentication process carried out over the user's mobile phone. Usage charges for the WLAN connection are then added to the user's mobile phone bill.

Excilan chief executive, Sean O'Mahoney believes this approach is less troublesome than alternative access methods for WLAN services, which can still be clumsy. Speaking at a conference in London in September, O'Mahoney warned that WLAN was a time-sensitive product, and said it was still taking users too long to get online, with access times running at anything between two and 15 minutes.

As with pure 3G, operators offering combined 3G/WiFi solutions are experimenting with alternative charging approaches. These include time-based and unlimited usage tariffs. But by doing so, they risk either sacrificing revenue per megabyte (and hence profitability) or being uncompetitive, says a new report, *Delivering High-speed Mobile Internet/Intranet Services*, published by Analysys.

The operators with integrated 3G/WLAN services in particular must devise tariffs that fall within a 'sweet spot' that generates profitable levels of revenue per megabyte for 3G, but also achieves a competitive

cost per hour for hotspot users, says the report. 'The only practical way to do this is to decouple 3G and WLAN pricing and offer bundles of 3G megabytes and hotspot minutes.'

Nevertheless, complementing rather than competing with WLAN providers is likely to be the best approach, the report suggests. 'There's real benefit in integrating the two together,' says Sound Partners' Mark Heath, who co-authored the report. 'If you just do it on 3G you're going to be very limited, and if you start to compete directly with the pricing of hotspots then the 3G margins can go through the floor.'

Maintaining an attractive level of revenue per megabyte means exploiting the unique benefits of 3G, the report suggests. For example, 3G can potentially offer attractively priced always-on email services on a near-ubiquitous basis while at the same time providing the 'glue' that connects and controls WLAN services, it suggests. For example, by notifying users of the location of the nearest hotspot if they need to make intensive downloads.

However, the UK's business users may still need convincing of the value of the new services. '3G and WLAN are to some extent untrusted networks,' says Jason Colombo, technical director at IT and network services consultancy, C&C Technologies.

Cost is a big factor that may put off corporates unless there's a true benefit, adds John Foster, technical delivery director for C&C. 'Clients we've worked with are happy to adopt (3G) at a small scale level for particular roving users or senior

executives,' says Foster. 'But they wouldn't really consider it a pervasive technology that they would roll out to their user community as a whole. So what you're left with is a public internet connection that is useful but not business critical.'

The key according to Foster is to make sure that the networks are able to deliver applications and utilise 3G's significant bandwidth. The problem is that not many organisations have an infrastructure that allows them to deliver their

Telefonica, T-Mobile and TIM. Telefonica Moviles has itself introduced services in Spain and Italy this summer.

A season for giving...

As the seasonal battle for the Christmas market gains pace, more price cuts are in the pipeline as 3G providers anticipate a substantial boost to their subscriber numbers.

In Italy, 3 has taken drastic steps and slashed its tariffs this autumn. Having reduced the price of its 3G/GPRS data card from €399

videophones for as little as €19 the competition will no longer be able to justify charges of up to €800 for a 3G device. 'Bargain basement fees are now inevitable.'

In the UK market the tone is less aggressive. Neither O2 nor Orange had confirmed their 3G consumer launch date at the time of writing, although Orange appears to be committed to launching in the pre-Christmas period whereas O2 is less certain, appearing to believe that mass market take-up of 3G won't occur before 2005.

An O2 spokesman pointed out however, that in terms of net connections, GPRS/GSM are running at more than 50 million a quarter compared to three million a quarter worldwide on 3G. 'Until that gap narrows I think the emphasis is going to be more on the choice of handsets with the bigger number than the smaller number,' he told *3G Solutions for Operators*.

It may be left therefore to Hutchison's 3 and Vodafone, which introduced a range of new 3G handsets in September, to battle it out head to head for the UK's new Christmas 3G uptake. Look out in the New Year when the pre-Christmas sales figures will appear. ■

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**Figures published by 3G Today, a website that tracks 3G rollout across all technologies, sponsored by Qualcomm*

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email, calendar or even ERP systems over the wireless network securely.

One move designed to please the business user is that operators with operating subsidiaries in more than one European country are now beginning to offer roaming services. Vodafone offers 3G roaming between its seven European networks as well as in Japan. The company says the list of available 3G roaming networks will continue to grow quickly.

Orange is also promising flat-rate 3G roaming across Western Europe for its customers at a cost of £8 (US\$14) per megabyte regardless of the provider. Philippe Bernard, vice president Orange Business Solutions, says the company will offer roaming outside the Orange footprint via the businesses of its partners in the FreeMove alliance –

(US\$490) to just €49 (US\$60), the operator is also offering video phones for as little as €19. New tariffs include the TuaNove flat rate voice plan for €0.09 per minute, and TuaExecutive and TuaSempre for heavier users.

Bena Roberts, wireless analyst at Current Analysis says that competition is hot in the 3G space in Italy, and the operator needs to promote its 3G services as superior to new services from TIM and Vodafone. Slashing the price of data cards should prove particularly effective with business users, she argues.

'This attack on the enterprise market will pay off since its rates are significantly cheaper than the competition and 3 Italy will win subscribers from its competitors, says Roberts.' Meanwhile, with