

nobody else would be able to match the combination of NTT, the fixed-line incumbent, and its dominant mobile arm, NTT DoCoMo. But the rules are being relaxed. Now that Softbank, an aggressive broadband provider, has acquired Vodafone's Japanese mobile unit, it too will be able to offer fixed-mobile convergence.

Give me convergence, but not yet

In short, the fact that fixed-mobile convergence is at last technically feasible does not guarantee its rapid adoption. There does not seem to be all that much in it for consumers. It will probably happen eventually, so that the handset in your pocket merrily roams on to whatever network allows you to make the cheapest calls, whether in the home, the office, outdoors or at the airport. And operators are already behaving as though it is inevitable: a survey by Informa found that nearly two-thirds of those who were in a position to provide FMC had begun to do so.

But widespread adoption of FMC will take time, says Mr Merry, because it requires technologies and business models to be brought into a new alignment. Indeed, it requires financial engineering as well as the technological kind: operators around the world will need to reabsorb their separate mobile units in order to integrate them with their fixed-line operations. (France Telecom and Telecom Italia have both done so already, though Telecom Italia now plans to reverse the process for financial reasons of its own.) That would mean, in particular, NTT absorbing DoCoMo, and Verizon buying out Vodafone's 45% stake in Verizon Wireless.

Furthermore, notes Mr Thelander, so far the only mobile handsets with Wi-Fi support are high-end models. Until Wi-Fi support is available in cheap, mainstream handsets, its appeal will be limited. Informa predicts that even in five years' time only 5% of handsets sold will support Wi-Fi. So FMC users are likely to account for a tiny proportion of telephone subscribers and revenues for the foreseeable future. "FMC's share of total communications revenues will be small for several years, but this is just the start," says Mr Merry. He predicts a total of 92m FMC subscribers by 2011, accounting for 3% of mobile subscribers by that time.

But the prospects for FMC could improve dramatically once new "femtocell" technology arrives, probably late in 2007. This involves using an extremely small but fully fledged mobile base station rather than Wi-Fi in the home or office. It still



plugs into a broadband connection to route calls, but can be used with existing mobile handsets, which gets round the need for expensive dual-mode handsets. Softbank in Japan is particularly keen on this, as are incumbent operators in France, Germany and Italy. The problem is that femtocells are far more expensive than Wi-Fi base-stations, so everyone is waiting for the price to fall below €100, says Rupert Baines of picoChip, a chipmaker that hopes to sell its femtocell chips to established equipment-makers. That will probably not happen until 2008, but some operators may well launch femtocell-based FMC services in late 2007 in order to steal a march on their rivals.

Another factor that will influence the adoption of FMC will be the attitude of mobile operators that lack fixed-line networks, such as Vodafone. For the time being,

such operators are responding by launching "homezone" products that offer consumers most of the benefits of FMC for much less hassle. Such schemes allow subscribers to nominate a particular location (ie, a particular network cell) as their home. Within that cell, their outgoing calls are charged at a lower rate. This helps mobile operators lure voice traffic away from fixed-line operators, a process known as "fixed-mobile substitution". What mobile operators are now doing, says Mr Merry, is sticking with fixed-mobile substitution for as long as possible, to steal as much traffic from fixed operators as possible, before launching their own FMC approach.

One way of achieving that would be to buy an Internet-service provider that already sells broadband access. Vodafone, for example, has recently taken control of Arcor, a German broadband provider, and established fixed-line broadband partnerships with BT in Britain and Fastweb in Italy to enable it to experiment with FMC in both countries in case the idea takes off. Similarly, O₂, an operator with mobile networks in several European countries that was acquired last year by Telefónica of Spain, recently bought a small British broadband company called Be in order to gain access to Britain's fixed-line market. Mobile operators could then use fixed broadband pipes to deliver content (such as music tracks) to mobile phones. Downloading music over wireless networks is still a painfully slow business, even with 3G mobile networks. But consumers might download more music, ringtones and games on to their mobile handsets if it was quicker and cheaper at home.

Let's get down to business

For the time being, though, FMC's brightest prospects are in the corporate market, where it can help to cut costs. Compared with the consumer market the numbers are small (see chart 5), but each customer is much more valuable. "We really see it taking off in the enterprise environment," says Mr Merry. Informa forecasts that by 2011 business users will account for a mere 10-15% of FMC subscriptions but as much as 20-27% of FMC revenues.

For fixed-line operators, FMC is something of a life raft. With the traditional voice business in decline, it enables them to hold on to their customers as they try to minimise their losses from voice-data convergence. Fortunately another form of convergence—between telecoms and television—offers them the prospect of a new market and new revenues. ■

