

finally be taking off after so many false starts and empty promises," says Mike Thelander of Signals Research Group, a consultancy.

The prospects for fixed-mobile convergence have improved because of the spread in recent years of broadband internet connections and the Wi-Fi short-range wireless networking standard, two crucial elements for FMC. Calls are handled within the home by a small base station that plugs into a fixed-line broadband internet connection. This base station communicates with nearby mobile phones using Wi-Fi (so you will need a new "dual mode" Wi-Fi-capable handset, to the delight of handset firms).

The home base station pretends, in effect, to be an ordinary mobile-phone base station. As you enter your house, your phone "roams" on to it. When you make a call, it is routed as a voice call over the broadband connection, which can handle several calls at once. If you leave the house while making a call, you roam seamlessly back on to the ordinary mobile network. And when a friend comes to visit, her phone roams on to your base station, but the charges for any calls she makes appear on her bill.

For consumers, fixed-mobile convergence promises the convenience of a single handset, a single address book and a single voicemail box, plus good reception and cheaper calls when at home. "We take care of connecting you to the cheapest network, wherever you are," says Mr Lombard of France Telecom, which recently launched a fixed-mobile service called Unik. There are also benefits for businesses. Surveys by Gartner and IDC found that over half of employees' mobile-phone calls are made in the office, even though cheaper fixed-line phones are available; 28% of workers use their mobile phones as their primary phones. Integrating fixed and mobile phones could help companies control and reduce their spending on mobile telephony. Some FMC systems, for example, allow calls from mobile phones to be routed through a company's central switchboard. This makes outgoing calls, particularly international ones, much cheaper.

Operators like the idea of FMC too. For incumbents it has several attractions, notes Mr Pileri of Telecom Italia. Primarily, he says, it provides "another reason for our customers to buy broadband access". Next, it discourages subscribers from defecting to rival mobile operators or even giving up their landlines altogether. FMC



also provides a defence against pure-play voice operators, who can compete with incumbent fixed-line operators on cost but cannot provide the seamless service of a single handset that also works when customers are out and about. FMC is, of course, a bundle: it ties together fixed, mobile and broadband services in a particularly "sticky" way that makes it a powerful customer-retention tool.

#### Fusion or confusion?

But how is FMC working out in practice? One of its strongest proponents is BT, which launched a service called Fusion last year. (It currently uses Bluetooth for the short-range indoor radio link, but will go over to Wi-Fi technology early next year.) BT sold off its own mobile network a few years ago, so it buys airtime from Vodafone. Indeed, it is the lack of a mobile network that makes BT such an enthusiastic backer of FMC, because it enables the company to re-enter the mobile market with a distinctive product that sets it apart from other operators.

However, Fusion has not been very well received. For one thing, it is quite expensive, says Paul Merry, an analyst at Informa, because customers have to have both a standard fixed line and broadband service from BT before they can subscribe to Fusion, which then adds its own baffling range of mobile-like calling plans on top. So to anyone who has already dumped their fixed line, switched to a cheaper fixed-line provider or does not have broadband, Fusion looks pricey. And the Bluetooth technology, which BT chose because it wanted first-mover advantage, is "the most clunky system ever", says Mr Merry.

BT's Mr Verwaayen naturally leaps to

Fusion's defence. The technology works well, he says, and by mid-2006 some 35,000 subscribers had signed up, "which I think is fantastic" (though given that BT has over 20m residential customers, it seems a modest number).

Even so, Mr Verwaayen admits that what customers like most about Fusion is the rather prosaic benefit of good indoor mobile coverage, so that their mobile phones work properly even if they live in an area with poor network coverage. "I thought they would be wowed by technology," he says, "but consumers have their own logic." The lack of enthusiasm for FMC is not surprising, says Mr Thelander, because most of the benefits accrue to operators. "These services are offered by operators to increase their revenue and reduce customer churn with very little in it for consumers," he says.

Another criticism of today's FMC systems, including Fusion and Unik, is that customers still retain both their fixed and mobile numbers (though France Telecom's Unik service uses just the mobile number). BT argues that Fusion is not designed to do away with the fixed-line phone, but to enhance the mobile phone—a natural position for a fixed-line incumbent to take.

But regulation is also a factor in some markets. In South Korea the OnePhone service launched in 2004 by KT, the local incumbent, has been hobbled by regulators' refusal to allow discounted tariffs, as well as by poor sound quality and the lack of seamless roaming between indoor and cellular networks. Mr Pileri says that in Italy regulatory constraints prevent Telecom Italia from offering Unik with a single number. Regulators also prohibited fixed-mobile convergence in Japan, arguing that