

# Chapter 1

## Executive summary

### Market status

Convergence was touted as ‘the next big thing’ in telecoms but has experienced something of a backlash now that some of the confident predictions made about it have not taken place. Industry commentators now err on the side of caution or outright pessimism when discussing convergence and FMC.

Convergence has reached a point where early technologies, such as UMA and femtocells, have been deployed to enable FMC for voice services but full FMC still remains more of a vision than a reality.

### Defining the parameters of convergence and FMC

Convergence is a pervasive phenomenon developing from the pressures of late 20th and early 21st century life – most clearly seen in the erosion of time available to individuals to fulfil work and social activities. Time has become a commodity to be traded; consequently anything that improves the efficiency of its use is a valuable asset. This is an important principle as it is the key attraction for convergent services acting as the litmus test for any convergent service offering, if a service fails to fulfil this core principle and does not provide some increase in efficiency – whether through increased usability or improved effectiveness – then success is far from guaranteed.

Convergence is a seemingly simple concept that has become increasingly complicated by its use in the telecoms sector. In order to best understand convergence, it is practical to consider it in terms of the players involved. Although convergence will benefit many players involved in the telecoms industry, there are a number of core player types that will need to formulate specific strategies to tackle its challenges and take full advantage of its opportunities.

### FMC players’ convergence strategies

#### Pure mobile operators

Historically pure fixed mobile operators, those operators without access to fixed infrastructure, saw fixed mobile convergence (FMC) as a threat. These operators have invested massively in building mobile networks and have a good understanding of mobile market segmentation. They have acted relatively defensively toward FMC using fixed mobile substitution (FMS) to counteract the FMC efforts of the other player types, particularly fixed operators.

**Figure 6.1: Selected convergent service enablers (continued)**

Company	Regions active in	Description
<b>Network (RAN and core)</b>		
Aricent		IMS client and application development environment for end devices, as well as control layer, media server, IMS VCC server and application server software. The bulk of Aricent's business comes from telecom vendor customers but it is growing its software including IMS clients. Operator customers include Hutchinson, Telefonica, Sprint Nextel and Vodafone. Partners include Radisys, Texas Instruments, Sylanro Systems and Italtel
<b>Software/services</b>		
Nokia	Global but primary markets are Western Europe	Developing several community-oriented service applications designed to be used across cellular and fixed networks including Nokia Ovi, an Internet service based on a single access point for services delivered to both cellular and fixed devices. Nokia Ngage application platform was re-released on Series 60 OS.
Google Android	Global but working to release in North America and Western Europe first.	Google's open 'free' application development platform. Being marketed and pushed as a device to enable fixed Internet services to be migrated to the cellular environment. Based on managed code emulating Java. Designed at inception to be available across several access network types including GSM/EDGE, CDMA, EV-DO, UMTS, Bluetooth, and Wi-Fi. A T-Mobile smartphone running Android was due to be available by end-2008.

Source: Informa Telecoms & Media

The following sections contain an example of each of the three main types of convergent service enablers: radio access network (RAN) providers; handset vendors; and network service providers.

## Radio access network provider: Ubiquisys

### Company background

Ubiquisys is a UK-based manufacturer of femtocells founded in 2004. The company obtained US\$12 million in first round funding and a further \$25 million in round B funding from a consortium that included T-Mobile and Google. Senior management within the company includes ex-members from Lucent, IPwireless and Motorola.

Ubiquisys worked closely with Orange during the development of its ZoneGate femtocell solution, launching a commercial grade version in 2007. Several operators are now trialing ZoneGate, including T-Mobile, O2 and Telefonica, with commercial launch being mooted for early 2009.

Devices used with FAP will broadly follow the replacement and new technology take-up rates of the regions' forecasts. Early innovator markets will see take-up in the more advanced network technologies due to a combination of the penetration of devices using these technologies and characteristics of early adopter segments, which include interest in new technologies, capabilities and services.

The ability to access data services at a reduced rate, particularly when in hotspot or homezone environments, will see a slightly greater growth rate in use of advanced network devices accessing FMC services than the average seen in the forecast regions. For example, North America will see 25% of devices accessing FMC services through advanced 4G-LTE/WiMAX network technologies by 2013.

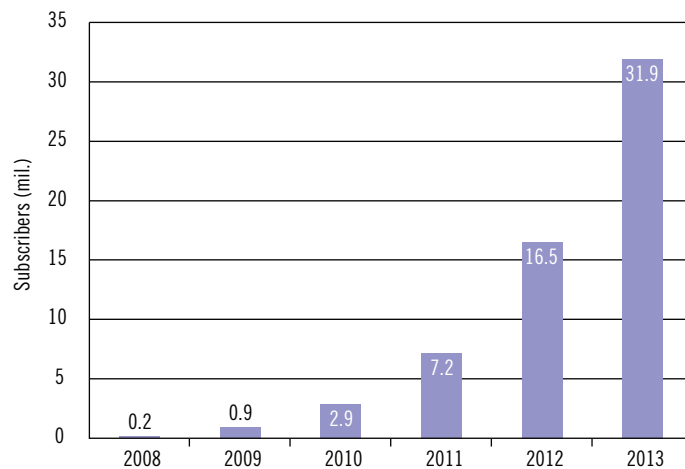
## Country analysis

The development of FMC will be very different both from region-to-region and country-to-country. Several factors will influence developments from technology and socio-economic factors to cultural, regulatory and even the vested interests of the various players involved in delivering FMC services. Consequently, it is worth considering some example countries and regions in order to evaluate the general strategies for FMC seen globally.

### The US

The US market is expected to lead the way in North America delivering over 90% of the region's FMC subscribers by the end of 2013.

**Figure 8.12: The US: combined FMC subscribers, 2008-2013**



*Note: figures refer to year end*

*Source: Informa Telecoms & Media*