THE DECT INDUSTRY REPORT

A REVIEW & CRITICAL ASSESSMENT OF THE INDUSTRY AT A TIME OF SIGNIFICANT TECHNOLOGICAL AND MARKET CHANGE

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WITH WIRELESS & IP CHANGING THE TECHNICAL LANDSCAPE, WHAT ARE THE STATUS, MARKETS, PLAYERS, THREATS & OPPORTUNITIES FOR DECT AS A MATURE TECHNOLOGY AND INDUSTRY ?

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The DECT Industry Report

Executive Summary

DECT is a mature technology – over fifteen years old, since conception – that today is penetrating the majority of European households. Analogue cordless will be extinct in Europe by 2007. Whilst 20% of the residential market will retain the corded phone, most homes will have multiple DECT phones. Whilst other technologies have made bold claims, DECT has quietly secured this major consumer market. This unique report comprehensively surveys the markets, players, threats and opportunities, reviews the state of the technology, standards & IPR, and includes a comprehensive industry directory.

DECT cordless today finds addresses two different markets - virgin geographical markets and increasingly mature ones – which require different approaches and pose different challenges and opportunities. The report explores the major opportunities and threats facing DECT today – the recent FCC unlicensed PCS band decision, fixed-mobile convergence, VoIP, WiFi and Bluetooth. A summary of the key issues addressed is given below. For more detailed information, please see the contents pages and list of exhibits.

The Global Market

The report begins with a global tour, reviewing the acceptance and status of DECT in all the major regions – Europe, Russia & the CIS, the Middle East & Africa, Asia-Pacific, India, China, the Antipodes, North America and finally Central & South America. For each region we explore usage and markets, existing or potential, spectrum & regulation, history and future opportunities.

Industry Coordination

The DECT Forum has played an important role in developing the global market opportunities, as evidenced by its recent work with UTAM and the FCC, and in providing a mechanism for industry players to collaborate, whilst operating in a fiercely competitive marketplace. We describe its origins, structure and objectives, its past and present activities, the services it offers its members and its future plans and developments.

Residential Cordless – Today & Tomorrow

The residential cordless market accounts for the bulk of 35m DECT shipments, 85% within Europe, 15% outside, in 2004. Growing markets in Eastern Europe, the Antipodes and the USA will change these proportions in coming years. Advances in technology, innovative marketing, increasing volumes and new market entrants all contribute to a highly competitive marketplace, with continuing price reductions and shifts in market share. Some established players are finding ways to retain and increase margin, by focussing on high-end products, whilst aggressive new entrants are seeing growth in market share at others' expense. The recent FCC decision, accepting the main proposals from the DECT Forum for the unlicensed PCS band, will fresh new opportunities for many players.

We review the migration of the European telephony market from corded to cordless, and the role and progress of DECT within this. We discuss the market drivers and pricing trends, as well as approaches to adding value, essential to maintain margins in a maturing market, including feature crossover from mobile phones. We discuss market status and leadership, describing developments in the major European markets and future growth in Europe, North

America, the Antipodes and China & India. We conclude with pointers to sources of detailed market intelligence.

We address ways in which mature residential markets can be developed and extended in the future, exploring new applications – cordless links in the home, interlinking of the phone & the PC and residential security, healthcare & automation – and discuss ways to maximise success in growing such applications.

Technology Disrupters

We devote two Chapters to exploring technology disrupters – significant technology shifts which represent threats and/or opportunities for DECT. Specifically these chapters address Voice over Wireless LAN and Fixed-Mobile Convergence, FMC.

Recent developments in VoIP, WiFi and VoWLAN are followed by a description of the emerging strategies of European DECT manufacturers. Residential VoIP is beginning to arrive, through independent service providers such Skype, Vonage and others. Consumer IP-DECT products, offered for some time in the business market, are arriving that allow residential DECT phones to access VoIP and other IP-based services. The emerging philosophy is that converged functionality does not mandate a unified single technology. Instead synergistic technology products (combined DECT+WLAN) allow HomeRF-type usage models to be addressed with today's technology, unchanged, without the need to wait for new standards or future evolutions of IEEE 802.11. DECT manufacturers are delivering today what others are promising tomorrow.

We consider FMC on two levels – service convergence and product convergence. Feature crossover from mobile to fixed line cordless phones is stimulating advanced, highly featured products, which support service convergence such as fixed line messaging – SMS and MMS. We describe the growth of such services for mobile telephony and their extension to the fixed network. The impact of fixed line messaging is not yet clear; thus, the report provides indicators to monitor. The re-emergence of the OnePhone – the combined cellular-cordless phone product – lies at the heart of the discussion of product convergence, with operators considering deployment of cellular-WiFi and cellular-Bluetooth products. We explore the lessons of the (recent) failures of the GSM-DECT OnePhone. What factors have changed that could lead to success this time ? Enough ? Is there significant consumer demand for a combined phone ? What could be the likely timescales for market transition ? What might be the impact upon the future of the residential DECT cordless market ?

The Enterprise Market

All European PBX suppliers today have DECT cordless as part of their offering. The enterprise has begun the transition towards unified IP infrastructures. Unified messaging, with infrastructure delivering automated computer generated messages to DECT phones – alerts, requests, information etc – in response to sensors within the telephony and/or IT infrastructures, is providing new capabilities to the corporate and manufacturing sectors. We describe the nature of the enterprise market, its segmentation and development, exploring two closely related trends – the adoption of IP and telephony-data integration – before considering the alternative enterprise solutions. In Europe DECT is the proven technology of choice. In North America enthusiasm for WiFi as a wireless delivery means for IP has to date driven the direction of enterprise cordless towards VoWLAN. The impact of the recent FCC decision remains to be seen; US CIO's now have a newly available option, and can compare systems available today against promises for tomorrow.

As DECT technology has become increasingly integrated on silicon, so size reduction has permitted the emergence of cordless headsets. A niche market, dominated by just two players, this is a market where Bluetooth has begun to have an impact, but one where new opportunities for DECT are still significant.

Fixed Wireless Access – FWA

DECT for FWA, pioneered in the 1990's but hit by the economic downturns in Asia and South America, has subsequently been overtaken by CDMA WLL, where huge investment from the cellular industry has brought price comparability. Nonetheless, such systems are still only deployed in areas of relatively high population density; DECT can offer a solution for sparsely populated regions, although innovative business models may also be needed. DECT remains a relevant FWA technology, particularly in India and the CIS, but opportunities remain essentially limited to local market players.

The Technology Base

The status of the DECT technology base is presented – semiconductors, modules, software, design services and ODM manufacturing – introducing the major players and their capabilities and offerings. The cost evolution of DECT is outlined, describing factors that have driven the fall in Bill of Materials, and implications for product pricing and markets.

Technology Standards

The DECT standards are succinctly introduced, with comprehensive references provided, to guide the relative newcomer to the detailed sources. The structure of the standards documentation is summarised, including the base standards and profiles. A guide to recent standards evolution is provided, notably UMTS interworking, IP interworking, the Open Data Access Profile and the ongoing activities of EP DECT. DECT standards variants developed for other parts of the world, such as WDCT and MARS, are also summarised.

Product Conformance

Product conformance processes and procedures complete the standards picture, with a guide to requirements to bring DECT products to market in Europe. This is complemented by an Annex on the recent FCC decisions, which describes the applicable procedures in the USA.

Intellectual Property

Potential new entrants to the DECT market need to be aware of the status and requirements associated with 'essential IPR', patents needed to implement a standard. We introduce the key elements of the patent process and its application in the telecommunications industry, we describe ETSI's IPR policy & processes, and then specifically address the issues of IPR within the context of DECT. We conclude by providing pointers to relevant IPR resources.

The Industry Players

The major companies in the different markets, their place in the value chain and indications of their strategies are introduced in the relevant report Chapters. In the 'Company Directory' Annex we provide further information on these and other players in the form of Company Name, Company Website, Role in Value Chain, Types of Products / Services Offered and Contact Information. A limited amount of company history and background of involvement in the DECT market is also provided.

Bluetooth & IEEE 802.11

Two Annexes, summarising key aspects of related technologies – Bluetooth & wireless LAN – are provided, not to provide a comprehensive technical explanation of their specifications and technology but rather to familiarise the reader with top level aspects and to provide pointers to sources of more detailed information.

The USA – The September 2004 FCC Unlicensed PCS Ruling

The final Annex provides readers with details of the recent decision by the US Federal Communications Commission which has resulted in the possibility of selling standard DECT equipment in the USA. We summarise how this came about, explain the role played by the DECT Forum, present relevant extracts from the FCC rulings and discuss their interpretations and implications, including the process for bringing product to market.

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