DECT FORUM

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News Letter

The International Publication for DECT Markets, Applications, and Technology

GUEST EDITORIAL BY ROBERTO PARODI, TELECOM ITALIA

DECT for Cordless Terminal Mobility

Since the 1st January 1998, Telecom Italia is operating "Fido", the first public Cordless Terminal Mobility (CTM) commercial service enhancing the fixed network with DECT-GAP/CAP radio access technology.

Following the very positive feedback received from an extensive technical and commercial field trial, Fido has been launched in 28 major Italian cities (about 10 millions of inhabitants and 5 millions of telephone lines involved). At the end of February, Fido had already attracted more than 39'000 customers.

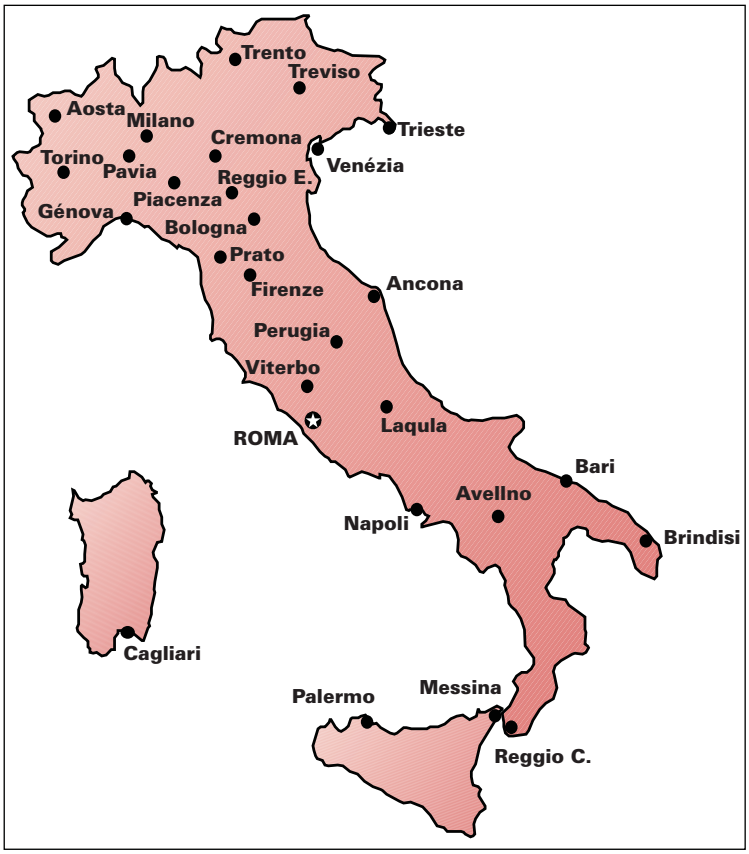
Our experiences, including the first reaction to the newly launched commercial service, confirmed us that DECT-GAP standard, enriched with external hand-over procedure, contained in the CTM Access Profile (CAP), is the best solution to give the fixed network subscribers the opportunity to use the same terminal handset at home/office and in the public environment as an extension of a normal telephone line.

Telecom Italia is firmly convinced of the DECT standard potential and it is adding its efforts to the DECT community ones, in order to keep improving CTM standard and therefore to be able to evolve towards new commercially viable services and features.

DECT FOR CORDLESS MOBILITY

"Fido": The Home Phone Gets Out

Following the largest DECT trial so far (1'000 Base Stations installed on 26 km²), Telecom Italia is now running the largest public cordless mobility service involving DECT technology. Since 1st January, Telecom Italia is operating his CTM (Cordless Terminal Mobility) service, named "Fido", in 28 major Italian cities (see illustration).



Fido is a highly innovative service in the world-wide telecommunications scenario. Positioned as an extension of fixed line facilities, Fido allows the customer to make and receive calls in the public area of his city. With the DECT-GAP/CAP cordless phone (i.e. DECT-GAP standard enriched with some CAP procedures), the customer can keep his or her own home telephone number also while being in the public environment.

When located in the home or office environment, the handset is connected to the fixed network via a private base station and it would work as a normal cordless telephone. Located in public environment, it is connected to the fixed network via public Radio Fixed Parts.

In public environment, the customer is able to make and receive calls. Outgoing calls are possible even if the home/office fixed line is engaged. An outgoing call made from the Fido handset in public environment is charged as a local call plus an additional

continued on page 4

The DECT Forum Mission

DECT Forum is an international organisation formed by leading telecom operators and manufacturers. DECT Forum has representatives in all the major geographical regions.

DECT Forum provides a unique platform for the exchange of experience between users, operators, regulation and standardisation bodies to ensure the sustained growth and acceptance of DECT world-wide.

Contents

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News Bits

Dubbed the Golden Pyramid project, Telecom Egypt will spend around US$ 300 million on the enhancement of the national telephone services. The expansion of Egypt's telecommunications network is set to double telephone capacity in the country over the next five years to up 800'000 lines.

Golden Pyramid will use DECT-based fixed wireless access solutions. For the first time, such a technology is implemented in Egypt to allow individual households and businesses to connect to the PSTN (public switched telephone network) with a wireless connection to the local exchange.

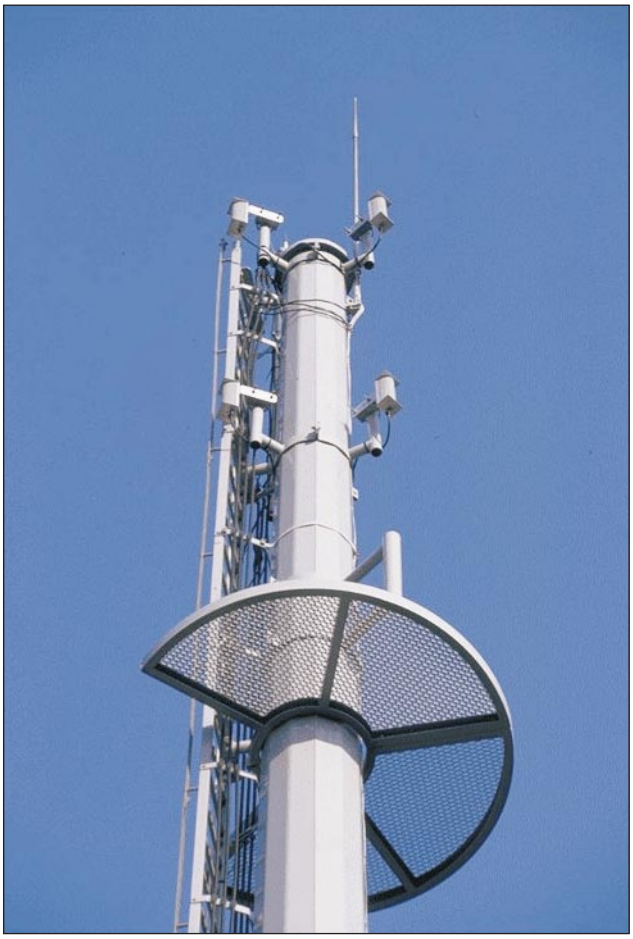
Dr. Günther Kleindl of Siemens in Austria has been appointed Chairman of the ETSI DECT Project (EP DECT). He follows Dr. Peter Olanders of Ericsson who resigned for professional reasons after eight years of Chairmanship.

More than 70 countries world-wide have so far allocated frequencies for the use of DECT. The number is still growing (see also "Frequency Allocations" on page 4)

WLL WORLD-WIDE

DECT: Most Successful WLL Technology in 1997

DECT systems had a remarkable success in the Wireless Local Loop (WLL) market as the leading technology, reaching over 31% of world-wide market share with new contracts awarded in 1997. This impressive figure has been reached thanks to DECT WLL systems flexibility, superior performance in terms of robustness, voice quality, traffic capacity and communication security, completed by an obvious cost advantage derived from a mature technology widely accepted and deployed.



Professional state-of-the-art DECT WLL Base Stations cover thousands of homes ...

The year 1997 has shown a real take-off of WLL systems with over 3 Million lines contracted by operators world-wide. Major contracts have been awarded to the various providers for DECT WLL systems in China, Colombia, Egypt, Indonesia, the Philippines, Poland, Russia, South Africa, Turkey, etc.

The ***South African*** WLL contract covers over 420'000 subscriber lines: it is the biggest WLL contract ever awarded to any WLL technology in the marketplace so far. It has been fully assigned to both purely DECT systems as well as DECT-combined wireless technologies. DECT won against competing WLL technologies.

The first ***China*** WLL contract, for over 125'000 lines, has also been assigned to DECT systems. For the first time in China, DECT-based WLL technology gained commercial status while other technologies are still on trial.

Some DECT contracts in ***Poland*** have already been put into operation in 1997: they are the first WLL systems working in Poland: DECT again is at the forefront of the field-applied technology.

Turkey signed early 1998 a significant WLL contract for 200'000 subscriber lines in rural areas. DECT systems represent up to 70% of the total contract: first 1998 contract for WLL systems, and again with DECT.

Egypt has launched a very ambitious program to double telephone capacity in the country over the next five years, aiming at up to 800'000 lines. DECT WLL systems have been selected as the wireless access solution for this project.

In line with the leading position of DECT in the WLL market, the providers carry out further developments and services to improve DECT performance in order to maintain or even increase its leadership. One of the main advances of DECT WLL lies in the diversification of services towards secure ISDN and data transmission, thus optimising spectral efficiency of this technology. Besides, the cells range of a DECT WLL system will be extended from 5 Km up to 16 km, without increasing the total radio power budget. This means that DECT WLL systems are again one step further than other cordless or proprietary technologies in the WLL market. The gap grows between DECT and its followers with comparable performance, in terms of coverage, to those of cellular-derived technologies while providing superior voice quality, higher capacity per cell and a wider service portfolio.

DECT WLL systems enhanced with extended range are fully compatible with the existing DECT WLL networks that can easily be up-dated to support the upcoming features.

... where cost efficient, small, and discrete subscriber equipment is installed.

MAJOR DECT NOVELTIES ANNOUNCED FOR THIS YEAR'S CeBIT EXHIBITION

DECT Forum at CeBIT 98

CeBit 1998, the major annual telecommunications and information technology exhibition will take place between 19th and 25th March 1998 on the Hanover Fairgrounds in Germany. A number of new DECT products will be launched at this event.

The DECT Forum will present the different aspects of DECT applications for private and public applications in its own booth located at FG J12. Visitors to the booth will receive unbiased information on

- the world-wide progress of DECT
- the global DECT market
- recent and future business developments
- new contracts
- present and future applications latest trends in standardization and regulations

During the whole fair, Board Members and Application Specialists of the DECT Forum will be present. Visitors are welcome to take the opportunity to personally discuss their area of interest such as

- Wireless Local Loop (WLL)
- Cordless Terminal Mobility (CTM)
- Business Cordless Telecommunications
- Residential Cordless Telephony
- Standards and Regulations
- DECT Today and Tomorrow

Additionally, the communications at the booth will of course be handled using DECT GAP (Generic Access Profile) compatible equipment. Booth communications will highlight the benefits of the GAP interface specification be proving interoperability of handsets from a variety of suppliers connected to a single private exchange.

Finally, visitors may witness the large number of handsets available from the DECT Forum member companies together with data terminals and fixed WLL cordless terminal adaptors.

DECT FORUM

Exhibition Center
Open-Air Site (Berliner Allee)
FG J12

CeBIT 98 HANNOVER
19. — 25. 03. 1998

ALCATEL	Hall 16, A14	ERICSSON	Hall 17, B31
ALPS	Hall 9, A31	Lucent Technologies Bell Labs Innovations	Hall 26, C09
ascom	Hall 17, A38	Panasonic	Hall 23, C28
BOSCH TELECOM	Hall 15, D14	PHILIPS	Hall 12, C54
HEITEL	Hall 16, C14	SAMSUNG ELECTRONICS	Hall 26, D60
CSyS	TCM, Room 217	SIEMENS	Hall 14, H14 Hall 26, E02
DeTeWe KOMMUNIKATIONSSYSTEME	Hall 17, F16	TELECOM ITALIA	H16, C24
T	Hall 16, B21	VTECH	Hall 17, E62
eplus DAS NETZ VOLLER IDEEN	FG F12	WAVECOM	Hall 15, G36P

Status of Standards

The second edition of the DECT System standards and the DECT Generic Access Profile (GAP 2) has been approved for Public Enquiry. The physical layer now includes an option for transmission of 2 Mbit/s data.

A New ETSI Technical Report TR 101 159 has been adopted by EP DECT. This report advises on the implementation of DECT on arbitrary frequency bands.

Frequency Allocations

DECT Frequencies have been allocated in ***India*** in the band 1880-1900 MHz, as well as in ***Egypt*** in the same band, while in ***Mexico*** and ***Chile*** the first licences for Fixed Wireless Access installations with DECT have been awarded in the band 1910-1930 MHz.

continued from page 1

"Mobility Premium" of 170 ITL per minute.

Incoming calls are always routed first to the home/office fixed line, from where they can be forwarded. Call forwarding can be manually, if someone answers the phone and dials a special code, or automatically, after 4 to 5 rings, if no one answers the phone to the Fido handset in public environment. When receiving an incoming call in the public environment the Mobility Premium of 170 ITL per minute, that will be added to the plain PSTN tariff, is charged to the calling user. A voice announcement informs the calling user of the extra charge applied when the call is routed towards a Fido handset in public environment.

The "Fido" subscriber in public environment has also the capability to call his home/office fixed line (and vice-versa) using a short dialling procedure named "interphone call". The charge of an interphone call depends on the subscription profile. If the customer chooses to pay a monthly fee of 3'000 ITL (first profile), no "Mobility Premium" is added, i.e. An interphone call is charged like a local call. On the other hand, if the customer prefers not to pay a monthly fee (second profile), then he would need to pay the "Mobility Premium" also for interphone calls.

Finally, it is important to mention that the voice mail function is freely included in Fido profiles and it is automatically activated when Fido handset is busy or not reachable. Listening to the messages in the voice mail using Fido handset or the fixed home telephone line is free of charge.

FORUM MEMBERS

New Associated Members

First Communication Inc., Taipei, Taiwan
Huawei Technology Corporation, Shenzhen, Guangdong, China

*See **http://www.dect.ch** for a complete list of DECT Forum Members*

CTM SERVICE IN THE CARIBBEAN

In the middle of the Caribbean, on the small French/Dutch Island Saint-Martin, a cordless mobility network based on DECT will soon go into operation. The first phase of deployment of the private company Saint-Martin Téléphone will include the main inhabited areas and the traffic ways which corresponds to about 10 km^2 out of the total 55 km^2 of the French part of the island. Later phases will include the rest of the island including the Dutch side where a co-operation with the local Telecoms Company is envisaged.

As there is no GSM service available on the island, the planned DECT network is the optimal solution for a relatively small community of 35'000 inhabitants. Saint-Martin Téléphone aims at lunching their service called "Dauphin (Dolphin)" in September 1998.

DECT'98 CONFERENCE

More Than 400 Listen to Latest News

DECT'98 Conference took place in Barcelona from 27th to 29th January. 450 delegates from 39 countries around the world attended the event that reached a very high level of success in all its aspects through a perfect organization.

In the exhibition area, 21 booths from manufacturers and test houses gave an image of the present situation of DECT technology, reinforcing the conference subjects developed during the three-day sessions.

The Chairman of the DECT Forum, Mr. Nicolas Houéry, who mentioned that 12 million terminals had been sold up to now, opened the conference sessions. The overview of the applications and future evolutions of DECT included multi-application terminals aimed at the residential and SoHo markets. Later in the conference and at the exhibition, equipment for data and multimedia applications were presented (DECT in PCMCIA card, IP connections, etc.). Business solutions implemented in the field showed the capacity of DECT for the provision of mobility in businesses, for different sites and in combination with public networks with enhanced services.

With the success of DECT in Wireless Local Loop (see "DECT A 'de facto' Standard for WLL" in this News Letter), manufacturers see the future with optimism and prepare the evolution towards high speed internet data through packet profiles which will allow a new range of services. Solutions will be available for operators competing in Europe, in addition to those already available in the developed markets outside of Europe. The maturity of DECT based WLL solutions was also highlighted by presentations on the regulatory and frequency aspects world-wide and on existing system. Operators from Brazil (Sercomtel), Hungary, (Deltav), or Indonesia (PT Telkom) explained their network developments and benefits of installing DECT in the WLL, as well as their future plans. The DECT Forum distributed a reference list with more than 160 WLL networks with DECT.

Public CTM launched in Italy had created great expectations and the figures of the first period of commercial service promises a very good success for this service. Some aspects of the future evolution of CTM were presented. DECT/GSM trials by Airtel (Spain) were discussed as one of the essential elements for the future evolution of public mobility with DECT.

Some speakers addressed the evolution of DECT towards UMTS stressing that unlicenced DECT applications of today will find their migration into the next generation system

In summary, DECT'98 gave the image of a powerful technology which has matured in private and public environments. DECT ensures the future evolution with high speed solutions for data and internet access, as the members of the DECT Forum reported in the closing panel debate.