DECT FORUM

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News Letter

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DECT Passes With Honours!

The theme and aim of this issue is to highlight the value and versatility of DECT in today's business domains. In my capacity as Director of the IESE University, I can assure you there are few better illustrations of the remarkable versatility this digital, crystal clear pico-cellular cordless standard than its utilisation in a university environment.

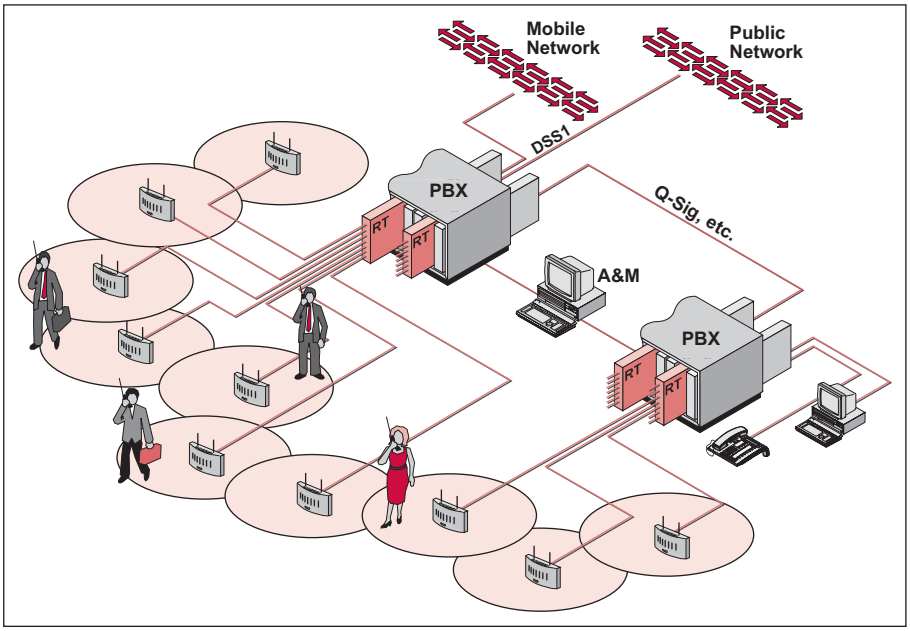
Founded in 1958, and based in Barcelona with a smaller dependency in Madrid, the IESE university is an international graduate school of management. Good communications is a tall order indeed, and not made easier by the fact that we have two geographically separate sites. The university's professors are an extremely mobile and communication intensive breed, rarely reachable at their own offices between lectures, and when they do find the time, are more likely to be using an empty office to catch up on paperwork.

Thanks to DECT, our professors - its main beneficiaries - can now add constant, and optimum reachability to their inherent mobility. In the past, for internal campus communication many times public payphones had to be used. Now they can call and be called wherever they are - and even make calls while walking between lectures.

DECT - THE IDEAL SOLUTION FOR COMMUNICATIONS AT TRADE FAIRS

Wireless PBX In Corporate Networks

With the Europe-wide introduction of the DECT standard and its growing acceptance also beyond the European Union, cordless communication is becoming increasingly important within private branch exchanges (PBXs). The need for high-grade mobility and flexibility in the business sector can be optimally met by DECT-based multi-cell radio networks using the existing PBX network infrastructure. One of the application areas with a high demand on subscriber density and network-wide mobility is the use of wireless PBX in trade fair projects.



Ensuring full compliance with the communication demands of fair exhibitors and visitors, wireless PBX manufacturers and providers are confronted with a wide range of technical requirements:

1. There is a need for full radio coverage for a large fair campus including indoor and outdoor areas. This requirement affects the interfacing to a very large number of DECT radio base stations.

2. The high subscriber density combined with ever-changing locations results in a high demand on channels both between PBXs and radio base stations as well as on the air interface. In order to meet the requirement for expanding the implemented extension limits (number of connected radio base stations and cordless subscribers) preference should be given to a modular system architecture for the Wireless PBX.

3. Due to the large number of supported subscribers and the resulting high demand on switching performance, trade fair

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.

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News Bits

The SEMINT 1997 was held in Foz de Iguaçu (Brazil), 6th to 9th October 1997, with the presence of Mr. Sergio Motta (Minister of Communications of Brazil), Mr. Pekka Tarjanne (President of ITU) and a strong presence of DECT in the conferences and in the exhibition. The DECT Forum Chairman, Mr. Nicolas Houéry, gave a presentation titled "DECT in the deregulated environment".

DECT is appearing as one of he leading technologies for the development of Brazilian telecommunications. The use of this open standard will allow the benefits of competition for the operators and, of course for the end users. As it has already been proved, the use of DECT allow multiple operators in the same area with Wireless Local Loop applications and the coexistence with other private applications when needed. DECT, as a proven technology, has demonstrated that networks can be easily and rapidly deployed for the best return of Operators' investment.

The "6th European Conference on DECT" was held in London, 22nd to 25th September 1997. More than 150 delegates attended the 3 days DECT conference and the 1 day workshop on DECT Wireless Local Loop. The conference showed deployments from different parts of the world and the operators explaining their experience in successful operation of DECT.

The "DECT'Asia Conference" was held in Singapore, 15th to 17th September 1997.

communication systems are normally based on campus networks. When these systems are expanded by the addition of cordless extensions, DECT radio base stations would usually be installed using the existing cabling to the nearest PBX. Since cordless subscribers want to make or receive calls independently of the actual location, the roaming functionality must apply to the whole campus. DECT/GAP basically also enables roaming within Corporate Networks. However, in order to support network-wide roaming with generally accepted subscriber registration, the existing networking protocol (QSIG+, etc.) needs to be enhanced for the transfer of information relating to mobility management.

4. In many cases the requirement for network-wide mobility also includes handover capability between radio base stations connected to different Wireless PBXs on the trade fair campus. Implementing this function requires synchronisation of all radio base stations in the trade fair Corporate Network.

DECT-based Corporate Networks can also support network topologies with transit nodes without Wireless PBX functions. Roaming and handover via such transit nodes requires fast signalling throughout the campus network.

A centralised domain management system is necessary for the network-wide administration and maintenance (A&M) of the Wireless PBX functions.

AT WORK AND AT HOME: GET CONNECTED WITH DECT

Right from the start DECT solutions proved to be successful on a world-wide scale: DECT technology is applied in the Americas, in Europe, in Africa, as well as in Asia by more than 10 million people today. This achievement has been reached in a heavily competitive environment without any subsidising.

At home, in the "small office home office (SOHO)" segment, and in large enterprise areas DECT was chosen as the cordless technology for its future proof scalability, cross-vendor compatibility, and the potential for wireless multimedia. These properties ensure today's customers long-term investment.

DECT SOLUTION FOR HOSPITALS

DECT Provides Cure For Acute Medical Problem

DECT has come to the rescue of a Dutch hospital by alleviating internal communications problems and substantially increasing the efficiency of its staff in the process. By scoring also in the medical sector, DECT has once again proofed to be the appropriate solution for providing mobility in interference sensitive environments. In addition, enhanced reachability in a hospital can save lives.

The Rivierenland Hospital is a 375-bed regional hospital in the east of Holland which boasts a modern outlook projected by an objective and sound organisation. The overriding aim of its staff is a noble, yet until recently, seemingly ambitious one: to provide the local population with complete and integrated medical care, with an emphasis being placed on personal attention. As is the case with most hospitals though, its physical layout is not exactly conducive to such an aim, and internal communication channels between staff were proving to be a hurdle to its realisation. Different buildings, several floors and long corridors meant geographical separation and much time being spent unproductively walking from place to place. Key hospital staff like doctors, surgeons and supervisory nursing staff - typically active in different locations throughout the hospital - rely on each other and need constant and immediate means of communication. Prior to the installation of the cordless DECT solution, alerting and communication, was largely catered for by means of a paging system. It was however, impossible to guarantee a quick response, and in many situations a paged doctor was obliged to abandon a task, search for the nearest telephone, only to learn that the reason he'd been summoned to was considerably less important than the one he'd left. Frustration and irritation often resulted and efficiency suffered.

DECT Solution

The solution to the hospital's communications problem was found in the guise of a DECT cordless system. The company installed a network comprising 70 base stations for complete radio coverage of the entire hospital complex in which 200 DECT handsets are operational.

Now, the key medical staff of the Rivierenland hospital can call for - and be called - for assistance quickly and easily wherever they are within the hospital grounds. Having to search for the nearest phone in response to a paging alert has been relegated to the past, as has the frustration of the many "false alarms" that formerly plagued the medical staff. Doctors can now even have their assistants filter calls before they are relayed to them. A functionality of the system is that by setting up a "manager-secretary" relation between the assistant's phone and the doctor's handset, only those calls considered by the assistant to be of sufficient urgency will be put through.

While DECT mobile telephony has not meant that the hospital's corridors have become any shorter, it has meant that the time spent navigating them can now be spent a great deal more produc-

FORUM MEMBERS

New Full Members

ALPS Europe, Munich, Germany
O.T.E., Maroussi, Greece
Samsung Electronics U.K. Ltd., Brentford, United Kingdom

New Associated Members

CSELT, Turin, Italy
VTECH, Farnborough, United Kingdom

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

CO-OPERATION BETWEEN ETSI AND DECT FORUM

The European Telecommunications Standards Institute (ETSI) in Sophia-Antipolis (F) and the DECT Forum have signed a co-operation agreement with the objective to promote, directly or indirectly, the establishment of DECT as a global standard for cordless telecommunications. Under the agreement, ETSI and the DECT Forum will jointly promote DECT beyond Europe.

The co-operation will cover technical areas such as the topics dealt with by the ETSI projects DECT, CTM (Cordless Terminal Mobility), ERM (AMC and Radio Spectrum Matters), as well as GSM or UMTS. In addition the co-operation in the marketing area through the ETSAG committee (European Telecommunications Standards Awareness Group).

This agreement will allow the free exchange of information in these areas, the mutual assignment of observers, or the definition of areas of mutual interest as priority targets.

tively. Walking time can be put to good use: by preparing for a visit to a patient for example, or making advance arrangements during an emergency situation, or even discussing diagnoses with colleagues. And privacy during these mobile conversations is never an issue. The encryption techniques employed - which is one of the reasons the hospital opted for the DECT solution - means that eavesdropping is impossible. Doctors can discuss patients' conditions safe in the knowledge that authorised third parties are excluded - even when speaking "on the air". Doctors know they can speak freely and the hospital can guarantee its patients absolute privacy and confidentiality.

Less Stress, More Job Satisfaction

According to Mrs. Marjan Bannink, of the hospital's Information and Communication department, both hospital and staff alike are extremely pleased with the DECT solution. "It's been instrumental in reducing daily stress levels and increasing job satisfaction. And for night duties it really comes into its own", she adds. "When staffing levels are lower, it means that the available people can easily call and support one another to handle urgent situations. And the crystal clear voice quality - even when on the move - is particularly gratifying."

But it's not only amongst the medical staff that DECT has been making friends. The service engineers and other technical staff are to the continued running of the hospital what doctors and nurses are to its patients. And in much the same way as DECT has extended optimum communicability to the medical staff, it has also done the same for the hospital's maintenance personnel. Hospital technicians for example, can be easily and efficiently summoned to quickly tend to anything from a major water leak to the connection of a television set for a patient. Moreover, the two medical technicians who bear responsibility for the hospital's vital life-saving medical equipment, are now permanent links in the hospital's communication chain and never more than a simple phone call away.

The success of DECT at the Rivierenland clearly demonstrates that it can be tailored to a multitude of diverse applications and can "get the job done" in a variety of demanding environments. In affording such a high level of contactability to the hospital's medical and support staff, DECT has been instrumental in elevating the standard of care the hospital can offer its patients, and has thus brought the realisation of the staff's noble ambition a step nearer to fruition.

800 CORDLESS USERS ON ONE SITE

No Call Remains Unanswered

The German domestic appliance manufacturer, Miele, had one overriding requirement for its plant located at Gütersloh in northwest Germany. Every internal or external caller should be able to reach employees whether these are at their desks, at another location in the plant, or anywhere in-between. They relied on DECT technology that helps to plan the optimization of workflow throughout the plant, with special focus on mobility, since employees will be increasingly expected to spend their time at different parts of the plant.

The solution adopted was to use a PBX with integrated DECT capability. Full premises coverage was provided and the application is now supporting 800 DECT cordless handsets. In addition, to prevent over-burdening of individual employees or work teams, the new PABX is also endowed with a call distribution system, ensuring that incoming calls be evenly distributed so that no calls go unanswered.

For Miele, the DECT handset has the same impact on its employees as a washing machine has on housewives: they have greater flexibility in fulfilling their daily tasks and more free time to concentrate on other jobs, they give greater freedom of movement and enhanced availability. For this reason it was decided to install DECT systems in two other nearby plants, one in Bielefeld and the second in Euskirchen.

Recent Frequency Allocations

CITEL (Iberoamerican Commission of Telecommunications) approved the recommendation of the 1910 to 1930 MHz band for Fixed Wireless Access, Low Mobility applications or low power private applications in Latin American countries, during the last plenary meeting of PCC-III held 22nd to 26th September in Mexico.

This Recommendation 32 clarifies the situation of 1910 to 1930 MHz band and allows more Latin American countries the allocations of this band for use with DECT technology. The decision has been based on the studies of the Interference Study Group, formed by relevant experts of the different technologies and which have produced a detailed study of interferences in the band of 1850 to 1990 MHz. The study showed that there is no technical problem for the coexistence of DECT with the PCS systems in adjacent bands, as it had already been claimed by the DECT manufacturers. Following this Recommendation, ***Mexico*** has already announced its decision to allow Fixed Wireless Access with DECT in the 1910 to 1930 MHz band.

DECT equipment for home and business can now also be used in ***Argentina***.

DECT'98 World Congress

Don't miss this opportunity to join the Industry event of the year and learn how DECT is not only a technology of today but also of tomorrow. Join us in Barcelona, 27th to 29th January 1998!

A SELECTION OF AVAILABLE DECT PRODUCTS

Alcatel

Subscriber Equipment
Alcatel 2690 Residential handset
Alcatel 4074B Business handset
Alcatel 4074H Heavy duty handset
Alcatel WNT-S Single line fixed wireless terminal
Alcatel WNT-D Dual line fixed wireless terminal

Private Systems
Alcatel 4200 Small PBX
Alcatel 4400 Medium/large range PBX

Public Systems
Alcatel 9500 High density public access system
Alcatel 9800 Medium density public access system
Alcatel 9550 Public CTM system

Ascom, Switzerland

Cordless Telephones
Adesso Cordless telephone
Avena Cordless business telephone
Avena ISDN Cordless business telephone
Avena plus Cordless business telephone
Ayata Cordless telephone

Bosch Telecom, Germany

Cordless Telephones
DECT-COM 557 Cordless Telephone
DECT-COM 757 Cordless Telephone
DECT-TAM 657 Cordless Answerphone
DECT-TAM 857 Cordless Answerphone

Crompton Greaves Ltd., India

Subscriber Equipment
corDECT WS Wallset

Public Systems
corDECT CBS Compact base station
corDECT DUI DECT interface unit

CSyS Creative System Solutions GmbH, Germany

OEM Modules
DECT/ISDN OEM-module

DeTeWe, Germany

Cordless Telephones
twinny magic Cordless telephone PSTN
twinny nova Cordless telephone ISDN

Subscriber Equipment
varix M2 Handset

Private Systems
varix DECT-Net PABX multi-base station

Ericsson

Subscriber Equipment
DRA 1900 FAU Fixed access unit
DT 120 Residential handset
DT 310 Business handset
DT 360 Business handset
DT 368 Business handset
TH 337 DECT/GSM handset

Private Systems
BS 120 Residential base station
DECT Business cordless telephone system

Public Systems
DRA 1900 DAN DECT access node

Lucent

Public Systems
IRT (Integrated Rural Telecom) Backhaul with DECT subscriber access
Swing Fixed wireless access system

Philips

Cordless Telephones
Xalio 6200 Cordless telephone
Xalio 6400 Cordless telephone with baby intercom
Xalio 6600 Cordless answer phone
Xalio 6800 add. handset to Xalio series

Subscriber Equipment
C311 Medium-end business handset
C911 High-end business handset

Private Systems
SOPHO iSMobile Integrated DECT PBX
SOPHO iSMobile Cordless Server
OEM DAS 2 DECT Access System

Samsung

Cordless Telephones
SP-R5000 Cordless Telephone
SP-R5050 DECT Cordless Telephone
SP-R5060 DECT Cordless Telephone

SDX Business Systems, U.K.

Subscriber Equipment
INDeX DH1 Handset

Private Systems
INDeX DECT PBX add-on

Shyam Telecom Ltd., India

Subscriber Equipment
DECTxs Wallset

Private Systems
DECTxs Private system

Public Systems
DECTxs Public system

Siemens AG, Germany

Cordless Telephones
Gigaset 1054 ISDN Small ISDN system with analog line interfaces
Gigaset 1054 Small system with analog line interfaces
Gigaset 2010 Cordless telephone
Gigaset 2011 Tango cordless telephone
Gigaset 2015 Cordless answerphone
Gigaset 2020 Cordless featurephone
Gigaset 2060 ISDN Small ISDN system with analog line interfaces

Subscriber Equipment
Gigaset 1000 TAE Voice/data/fax analog line adaptor
Gigaset 1000C Comfort handset
Gigaset 1000P Handset for public and CTM applications
Gigaset 2000C Comfort handset
Gigaset 2000C Tango comfort handset
Gigaset 2000S Handset
Gigaset 2000T Desktop cordless terminal
RNT1/RNT1L Single line subscriber module
RNT4/RNT4L Four line subscriber module

Private Systems
Hicom Cordless 125/150E Integrated solution based on Hicom 325/150E medium to large size
Hicom Cordless 300 Add-on solution for any PBX medium to large size
Hicom Cordless E Integrated solution based on Hicom 300/300E medium to large size
Hicom Cordless S Single cell system for Hicom 100E

Public Systems
DECTlink WLL system with integrated CTM mobility
DECTlink compact Desktop version for small subscriber groups

Telcom, Russia

Cordless Telephones
Goodwin PENTA 2211 Cordless telephone

Private Systems
Goodwin ODENSE DECT Business cordless telephone system
Goodwin SPREE DECT PABX

URMET SpA, Italy

Cordless Telephones
CHARLIE 1970/7 Cordless telephone with CTM capable handset
DECTY 1970/11 Cordless telephone with CTM capable handset