



CORPORATE DOSSIER

HACIA UNA TECNOLOGIA MAS HUMANA

- VOZ
- RECONOCIMIENTO ESPONTÁNEO
- SÍNTESIS DE ALTA CALIDAD
- GENERADOR DE APLICACIONES
- SOLUCIONES A MEDIDA
- CONSULTORÍA

la voz de la experiencia

Natural
VOX



*"Natural Vox,
buenos días,
¿Qué desea?"*



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INTRODUCTION – HISTORY OF THE COMPANY

Natural Vox began to develop its products on November 1989 and it was found as a Anonymous Society on August 1991. Their founders were **Pablo Garín**, previous General Director of Control Visión Computer S.A. (CVC), a leader business in the Spanish market of industrial vision system, and **Luis Zumárraga**, previous Director of Promoción Tecnológica de la Sociedad para la Promoción y Reconversión Industrial (SPRI), as well as Capital Riesgo of the Industry Department of the Basque Government.

During these 18 years Natural Vox has developed different products that have turn the company into the leader of the sector.

CPT product (Telephonic Appointment) began to be commercialized on April 1992; SIP (Information System) on December 1992 and BpT (Banking by Telephone) on December 1993.

In the year 2000 Natural Vox began to develop **Application Generator (GAP)**. It is a powerful tool, no one like this in the market. Any user, without being an IVR expert, can develop in a graphical and intuitive way voice applications, from the easiest one to the most complex, with the guarantee accumulated during more than 18 years.

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MISSION OF THE COMPANY - OBJECTIVES

Since its beginning, **Natural Vox** has tried to introduce in the Spanish market a new **interactive telephony concept**, running away from traditional IVRs based on DTMF or simple recognition of one word.

The future plan of the company is to consolidate **Natural Vox** as a **national reference** in the implementation of **Interactive Telephony Systems** and **Second Generation IVRs**. To do so, we are immersed in a process of **continuous innovation**. We not only buy finished product but we are implicated in the development of a variety of products. The I +D laboratory has done and it is doing a great amount of projects related with the development of new products, like the new **Applications Generator GAP**.

The commitment of the company with the world of the investigation is such that it dedicates **41% of its budget** to research projects, which allow us to be the head in the use of the **latest technologies**.

In the **Project Department**, the audio area is in charge of elaborating the **audio** until they get the highest levels of quality and the maximum naturalness.

For it, a special care is taken in the recording, content and intonation of the audio. Also, a great attention is played in the treatment of pauses. The silences are a part of any conversation and are, in addition, necessary when obtaining exterior events.

All of this is fundamental so the final user of an IVR feels the same feed back that it would feel with a person.

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PRODUCTS - SOLUTIONS

The increasing number of Call Centers has created a great need of **flexible communication solutions** that are able to use the capacities of the telephone in conjunction with the computers. Multiple communication channels are needed to give service to the clients needs, potential clients, employee, partners and suppliers who look for rapidity and facility at the moment of acceding to information.

Natural Vox offers the most powerful platforms to make global and integrated communication solutions that cover most of its clients needs.

BANKING BY TELEPHONE

Our **BpT System** has been giving an exceptional service since 1993 in bank facilities with high volume of calls like CAJA MADRID and BANCO ATLÁNTICO. The good operation of both facilities has done that two other of the most important spanish banks, like BBVA and OPENBANK (BSCH group), decided to install BpT in their Call Centers to give service to all their clients calls, 24 hours per day, 7 days a week, as well as to take advantage of its resources to the maximum and to save costs.

Now, we also have installed BpT in BANESTO and BANCO POPULAR.

Since the first facilities, BpT has been evolving adapting to each one of the new technologies that have been appearing, at hardware and software level.

The most important difference between BpT and other Banking Systems is its *naturalness*. Since the beginning we have equipped our applications with the last technologies developed in our laboratories, but without forgetting the naturalness in the data interchange between man and machine. While other Automatic Systems are so slow reproducing all the options that the user can select by tones, in our Systems the initial question is **How can I help you?** not limiting the possibilities of what the user can request.

We include *the practical totality of the operations* that can be made in telephone banking, even the most complex: transferences, funds investment (subscription and reimbursement), values, extracts by fax, etc.

PRODUCTS - SOLUTIONS

INFORMATION SYSTEM

In the Administration and the great account environments, it is more and more frequent that the users call by telephone to ask for information of diverse nature.

Natural Vox Telephony Information Systems can contain great variety of different information that include the most frequent request of information. After interpreting the user requests, either by Recognition or through a small aid of the operator, the Systems reproduce the most suitable information.

A good example of this product is DGT (Dirección General de Tráfico) in Madrid, Málaga and Sevilla or the Weather Information.

APPOINTMENT

The Previous Appointment Systems created by Natural Vox respond to the necessity of our clients to offer to their users a quality service that works 24 hours a day, 365 days per year. No more queues nor delays for the clients to take an appointment!!

It allows to work with dedicated personnel to facilitate more the access to the System, or leave it in an automatic mode so the System is based on Discreet and Continuous Recognition to arrange an appointment. Some of our most consolidated applications are: IMSALUD, Previous Appointment to make the rent declaration, in the Diputación Foral de Guipuzkoa, ITV-Euskadi in Bilbao and ITV Ivesur in Málaga.

TICKETING

At present, the number of operations realized by telephone are every day more and more. We can buy tickets to the movies, to the theatre, to concerts, planes, trains, bus...

Natural Vox Ticketing System allows the client to realize these buys in a rapid, comfortable and effective way. Nevertheless, Natural Vox has gone farther and it has created a Ticketing System that the user beside buying an entry, can reserve, ask for information about prices, schedules, dates, availability, points of sale...



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DIFFERENTIAL ELEMENTS

Some of the differential elements that characterize Natural Vox in the development of Interactive Voice Response (IVRs) are:

Analysis Capacity: when beginning an application development, the new environment is analyzed, monitoring hundreds of conversations to conclude, from a conceptual and linguistic point of view, what can be done automatically or manual. This analysis allows to offer a solution, observing the needs of a Call Center, to obtain with the minimal physical and human resources a system with a suitable quality conversational level and a balanced response time.

TOP potential: TOP, a complement for voice recognition. It is an exclusive patent that allows to any client the use of all kinds of expressions in any conversation, natural language.

Man-machine interaction: the applications developed have a very fast answer and have a user's interface with high naturalness (How can I help you?)

Audio quality: the intrinsic audio quality, the electronic and conceptual elements that we use to concatenate voices and mix them with synthetic and semisynthetic voices, do that the system expresses with naturalness and without amplitude "scares", tones or interruptions.

Voice Recognition: It permits to create applications with a very high level of quality.

Own Synthesis: Natural Vox has developed a text to speech synthesizer based on CORPUS technology, thanks to which the difference between natural and synthetic audio is practically inappreciable.

Integration: the systems developed by Natural Vox are integrated perfectly with applications and systems that the client has in his facilities (hosts, Web, PBX, CTI, databases, etc.)

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DIFFERENTIAL ELEMENTS

TOP is a concept developed and patented by Natural Vox. It is a complement to the voice recognition. So the TOP assists the STI when some phrases are not recognized with enough guarantee, transcribing the answer.

The TOP allows to detect real situations in which it is suitable to transfer a call to a live agent, without having to indicate the user to use a key word in a certain moment of the conversation to obtain personal help.

The systems developed until now were using "Word Spotting" technologies, which were trying to find inside the response of the caller a series of foreseen expressions. A correct recognition system must interpret all the terms of the phrase and take an automatic decision when the set of the recognized terms has enough guarantee and the intentions expressed by the caller have been interpreted correctly.

Voice recognition systems have been evaluated by the percentage of words recognized, words not recognized and erroneous words. Nevertheless, Natural Vox proposes and uses a new system to evaluate the recognition. It uses the percentage of phrases which intentions have succeeded whole or partially, or they have not been succeeded.

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SERVICES

From its beginnings, Natural Vox has developed the most robust, precise and advanced Interactive Telephony Systems. Lately, the market evolution analysis has permit to detect the client necessity to have more independence with respect to the suppliers. This fact has made Natural Vox to develop a novel and very powerful tool: **GAP**. **GAP** condenses all the Natural Vox accumulated experience and permits to their users to develop complete Systems, without losing quality.

Thanks to **GAP** Graphical Editor anyone can develop a System by himself, although, if anyone wishes it can be done with Natural Vox support. If anyone want a more complex application, Natural Vox still keeps developing made to measure applications, with the purpose of making available to the clients the most robust, precise and advanced Automatic Telephony Systems with Voice Recognition and the highest quality Synthesis.

Natural Vox makes available to its clients the following services:

GAP FORMATION

Natural Vox does not limit just to sell **GAP** tool, but facilitates the necessary formation so that their users can develop applications in an independent way.

Depending on the user's profile, a user will need more or less formation to make developments. Anyway a user with basic computer knowledge will be able to design quickly a simple application and the most experienced users will be able to develop, quickly, complex applications that hoard the experience acquired by Natural Vox during the last years.

CONSULTANCY

Natural Vox offers an advisory service to design and implant a last generation Telephony System in your company. Their technicians will give answer to all the questions, analyzing their requirements and recommending the implementation plan that better fits to its real necessities. Thanks to the experience in different facilities already consolidated and by means of a sizing and analysis software, Natural Vox offers the best solution.



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SERVICES

In order to value the IVR implantation viability in a determined situation, it makes:

- **Strategic analyses:** incoming and outgoing call relation; database relation, IVR collaboration.
- **Conversational Analyses:** detection of possible automatisms and implantation phases calculation, development times and investment returns.
- **Integration Analyses:** computer structure design, telephonic structure and CTI integration.

SUPPORT AND MAINTENANCE

• **Support for the development of applications with GAP.**
Natural Vox offers to its GAP users continuous support and advice. Their technicians will be in charge to solve any doubt that can be raised to the user during a project design. Also, they will be able to facilitate new revisions and program versions and their complement.

• **Applications Maintenance.**

Also the made to measure Systems have specific maintenance and support. Once the System is working in real, Natural Vox continues collecting data about its operation.

A person from Natural Vox will be in charge to solve any doubt and to follow the System evolution to detect new necessities, always with the purpose of optimizing the System operation and management.

In this case, the technical support is also provided by telephone or e-mail. Also, all the Systems are managed by Telemaintenance, since a connection via mode is established with the system to be able to accede to it when it is necessary.

• **Recording Service.**

Natural Vox makes available to its clients a Recording Service. In a professional studio, equipped with the last advances in the engineering sound world. Their technicians record and work the voices of experienced professional speakers.

• **Specific Recognition Modules Generation.**

Although most part of GAP dialogue modules incorporates their own predefined recognition vocabularies, the user can design others that will be automatically incorporated to the application (for example, to add nonpredicted elements lists).

For open questions of the type What do you want?, Natural Vox makes available to its clients the experience and capacity of its technicians at the time of developing specific recognition modules.



SERVICES

DEVELOPMENT OF MADE TO MEASURE SOLUTIONS

Natural Vox is a company specialist in the design of made to measure applications. During years it has developed specific Systems of Banking by Telephone, Previous Appointment and of very diverse information. Its long experience in this field guarantees the successful attainment of the project within the time and the decided budget.

Natural Vox puts a special emphasis in the development of an user interface at the recognition level with high quality and very human, as well as, the whole integration of the System with all the Applications and Data Bases that our clients require.

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PORTS SOLD - CLIENTS

Natural Vox has developed Interactive Telephony Systems for clients with recognized prestige in the finances sector, administration, technology, pymes, etc. Natural Vox is an unquestionable leader, at national level, in the implantation of Interactive Telephony Systems for the Bank.

Our best business card is, without a doubt, the group of installations already consolidated that daily, give service to thousands of telephone transactions. Natural Vox will be delighted to provide a first hand references with our clients, so you can verify, deeper, the excellent operation of the implanted systems.

Next, some of our recognized prestige clients:

CAJA MADRID



Caja Madrid, one of the first national savings bank, has trust again in Natural Vox substituting the STI installed in 1992 by a new one, more powerful and completely developed with GAP. The System includes new grammars and vocabularies, rising the recognition levels.

BANCO BILBAO VIZCAYA ARGENTARIA **Grupo BBVA**

The Interactive Telephony System installed in BBVA, one of the main banking corporations at national and international level, is designed to make by telephone and ampler number of banking operations.

Following Natural Vox philosophy, the conversation is based on Voice Recognition and begins with an open question "How can I help you?". This innovating interface, gives a human touch to the System, and permits to interact with the user in a natural way.

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OPENBANK



OpenBank, a branch office pertaining to BSCH Group that follows the innovating philosophy of not having branches, decided to use as a complement in its clients attention lines, the BpT System provided by Natural Vox.

BANESTO



In January 2002, Banesto decided to install a Natural Vox STI designed to make telephone banking operations. This application is the first one that Natural Vox has been completely developed using GAP.

This System has the last technology in Recognition, Advanced Recognition and Synthesis. The Synthesis, that also works in real time, is the last version developed by Natural Vox.

Banesto is the first client that has our Graphical Application Generator, GAP, being able to design and modify its own application

BANCAJA



With Bancaja, our advisers made a consultancy to define the functionality of the Banking by Telephone System that is giving service right now.

Also, Natural Vox developed a System to evaluate the results of the consultancy.



PUERTOS VENDIDOS - CLIENTES

BANCO POPULAR



Banco Popular has also trusted in Natural Vox installing a Telephone Banking System, with natural recognition specially made for them. The development was also made with GAP Editor.

BANCO ATLÁNTICO



Banco Atlántico, another one of the most important national banks has chosen to offer to its users a hot-line banking information system developed by Natural Vox. This installation, permits the clients to accede from any telephone to the information of their accounts and also to make an ample number of operations, without having to go to the bank.

IVESUR



IVESUR is the first Spanish company dedicated to ITV that has received the AENOR certificated, according to ISO9002 norm. It has a Previous Appointment Telephone System developed by Natural Vox that permits to offer a greater quality service to its clients.

This System is developed using Voice Recognition Technology and allows the IVESUR clients to request an appointment to make the technical inspection of their vehicle 24 hours a day.

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ITEUVE EUSKADI



The Automatic Telephony System for Iteuve Euskadi, permits to take an appointment 24 hours a day, to make the ITV in different stations. By means of this applicative, Iteuve Euskadi has been able to reduce costs derived from the attention to collect appointments, allowing it clients to enjoy an effective and easy to use Previous Appointment System.



PORTS SOLD - CLIENTS



IMSALUD



It is a Previous Appointment Systems that allows to request, change or cancel an appointment with the doctor and the pediatrician.

It is installed in Centro de Salud Jazmín (Madrid) and it works 24 hours a day, 7 day a week. The System, developed with GAP Editor, is obtaining a 70% of automatism. .

DFG



Every year, during the rent campaign, a great number of people get in contact with DFG to make their rent declaration. The Interactive Telephony System provided by Natural Vox for the DFG permits to attend approximately 4000 daily communications.

So, the investments in personnel, time and money are reduced remarkably. The Automatic Telephony System implanted allows to the contributors to arrange an appointment 24 hours a day and makes possible to attend a greater number of simultaneous communications.

ALSA



ALSA, a company leader in the Spanish sector of transport of travelers by highway, has a Ticketing and Information System, available 24 hours a day, 365 days per year. The operations that can be done in an automatic way are the following: consult schedules, prices, addresses, points of sale, buy, reserve, change and cancel tickets.

This application, developed with GAP Editor and with advanced recognition in all the questions, permits to automate most of the calls in the Call Center.

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PORTS SOLD - CLIENTS

MAPFRE

MAPFRE

The System installed in the main Mapfre offices in Majadahonda, gives service to all the agents and providers of Mapfre Autos.

Thanks to this System, the agents can check in an automatic way, using the vehicle number plate, a policy, receipt, charge advise, validate proposals, between other options.

Providers can:

- open and confirm an expedient.
- continue an opened expedient.
- confirm a finalized service.
- other options.

RACC



The System developed for this company provides information of schedules, directions, telephone and fax number of different delegations.

AMENA

amena

The project has consisted on generating a Recognition System for the question "How can I help you?". This recognition has been made from real material of Amena clients.

The objective of this development has been to maximize the understanding, maintaining the error.

TELEFÓNICA MÓVILES



Telefónica Móviles is leader in the development and management of activities related with mobile telephony and radio finding and radio telephony services. This company has selected Natural Vox to develop projects related with speech technologies that permit to offer a better service to their users and to improve it corporate activities.