# Press Release

Nayar Systems
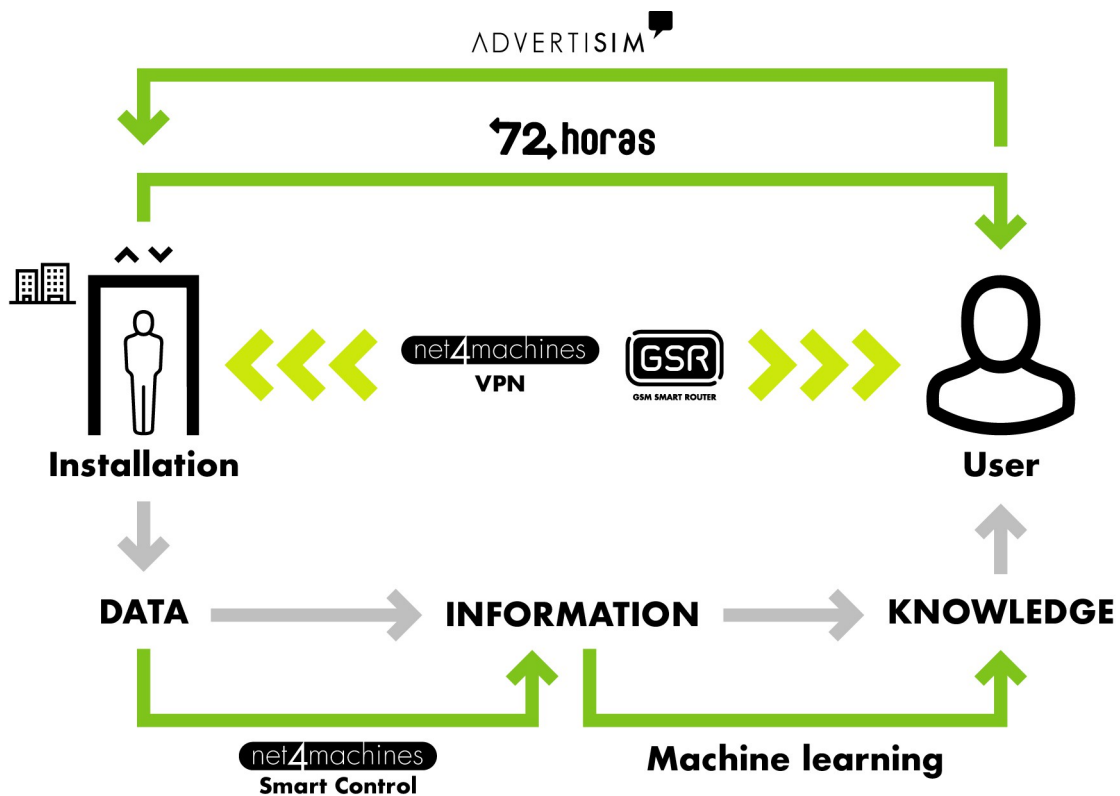
# Índice

# 1. Nayar Systems, the IoT of elevation

Nayar Systems is a **telecommunications engineering company** with 100% Spanish capital and a management model based on **innovation** and **quality**. Its firm commitment to **investment in new technological developments** has allowed it to expand both nationally and internationally.

After twelve years of professional trajectory, the company is present in 31 countries all over the world. It currently has **72 Horas**, specialized in M2M communication for the elevator sector and European leader in the supply of mobile lines and management of the EN 81-28 standard; **Advertisim**, the first device on the market with real time connectivity capable of displaying elevator information and advertising content; **net4machines**, an industrial IoT service provider that offers a secure network to transmit data recorded in the facilities, and a management platform to process and transform them into information understandable to the user; **GSR - Gsm Smart Router**, the first IoT communications device for the elevation sector that offers a 360-degree solution for connecting all devices in an elevator via a single SIM card; and **Nearkey**, an access control system that enables management of user and group permissions in the cloud, as well as time restrictions.



## 1.1. Innovation as a raison d'être

80% of the company's investment goes to the **technological development** of products and services of its firms. In a sector in constant evolution, only leading **innovation** and **knowledge** in **communication solutions** and **technological connectivity** with commitment and transparency, will allow Nayar Systems be recognized as one of the main European actors, especially in the capture and processing of **technological knowledge**.

It also has **Nayar Systems Garage**, a department dedicated to creation, innovation and technological development. A department that allows employees to acquire knowledge that enriches the innovative character of the corporation. The first fruit of this department has been **Nearkey**, a **solution for opening doors** by **mobile phone**. A technological company can never lose the ability to innovate, and Nayar Systems Garage corroborates this.

# 1.2. Unlimited interconnection

A business philosophy based on **talent** makes Nayar Systems a strong advocate of **human capital**. The implication and daily effort of its **human team** makes possible the development of products and services that make life easier for its public. It also has a **flexible structure adaptable** at all times to the **demands of customers**, thus **achieving personalized attention of the highest quality**.

Nayar Systems is characterized by a **high degree of integration**. Its business model allows to carry out all the phases of the process of creation and development of its products, offering **solutions** that result in **complementary services to each other**.

The **Internet of things (IoT)** conceives technological interconnection as a reality and Nayar Systems makes this tool **without limits**. Within the IoT we find a subcategory focused on industrial processes. The so-called **industrial IoT** consists of the connection of machinery through a series of sensors and other devices to obtain data that, correctly analyzed, once transformed into information will allow us to perform an **analysis of its operation**.

The IoT is a great step for the technological industry, opening an infinite range of possibilities. All this with the aim of benefiting people's daily lives, achieving a higher level of independence and gaining in **efficiency and comfort**. As experts and leaders in offering solutions in industrial IoT, Nayar Systems presents itself to companies as an **ally** with which to **strengthen their competitiveness** and achieve **operational excellence**.

# 1.2.1. Leading the technological transformation

In a society in which technological developments expand with agility, interconnection is no longer a novelty. Rather, it is the impulse that motivates companies **to lead technological transformation**. IoT has become a common practice, in many ways a real necessity. It is precisely in **connectivity** where we find the key to the **technological revolution**, and how humans interact with machines reveals their vast potential. The automation of production processes leads to **effectiveness**, and with it to the reduction of time and costs.

In the elevation sector, the IoT goes through bringing the **data registered** in each of its facilities closer to the user. Data that needs **to be transformed into information** so that it can be understood by the user. In order to provide you with the Internet of things, Nayar Systems has developed the products and services that allow the user to benefit from this transformation.

First of all, we need a **means of transmission** that allows us to connect the machine with the user. **GSR - Gsm Smart Router** will be the hardware in charge of this. We will also need a **VPN** for the transmission of data is done securely, a private network offered by **net4machines**. The next step will be to process these data to convert them into information, and for this we will need to know their origin, if they come from a sensor, a screen, etc.. We will achieve this through the net4machines Smart Control telemetry service offered by the Nayar Systems online management platform. net4machines Smart Control also includes a **remote control** service that allows you to control and configure the compatible elevator manoeuvres (virtual console) without having to do it in situ in each of the installations. A **bidirectional communication** that allows the user to obtain more extensive knowledge and considerably reduce the number of trips.

# 1.2.2. Pioneers in compliance with European regulations

There are other measurable aspects of an elevator that have nothing to do with telemetry, such as the **emergency system**, with a specific European regulation, **EN 81-28**. It is here that 72 horas intervene, which allows installations to comply with that regulation. On the one hand by providing a **telephone line** which the passenger can use in case of emergency. On the other hand, allowing the lift technician to  have **visibility of the installation** at all times through **7 2 Horas Manager**, as reflected in the European Union regulation.

72horas was **the first company in the market** to give access to the user so that he would be aware of the correct functioning of his installation, leading at European level the compliance with safety rules for the construction and installation of lifts. At the same time, it would allow Spanish elevators, and therefore Spain, to head the list of European Union countries in terms of safety.

## 1.2.3. A pioneering technology

In an elevator we also find many other elements, such as screens. Screens that transmit information and allow the user to connect with the passenger. In 2014 Nayar Systems launches **Advertisim**, the first device on the market with **real-time connectivity** capable of displaying **elevator information** and **advertising content**. A technology that in turn allows the user to inform about aspects such as the vibrations of the car or the use of the elevator, so that the passenger experience is excellent.

## 1.2.4. Machine learning and Artificial Intelligence

Transforming facility **data** into user-understandable **information** is a thing of the present. The future of the IoT of the elevation has as challenge the **transformation** of this information in **knowledge**.

In the same way that many of its developments were pioneers in the market, Nayar Systems works daily on the automatic learning of machines. **Machine learning** and **artificial intelligence** will lead to the democratization of knowledge and technological dissemination. One of its main advantages will be **predictive maintenance**, which will allow objective decisions to be made about an installation based not on probability, but on concrete facts. Faced with the paradigm that only experience transmits knowledge, Nayar Systems invests in developments to make the future a reality today.

# 2. Business Model

## 2.1. Structure

Nayar Systems has a flexible structure that adapts at all times to the demands of customers in any of the firms involved. In order to provide personalized attention of the highest quality, Nayar Systems is divided into a series of departments composed of great professionals: Management, Sales and Marketing, Information Technology, Engineering, Technical Support, Human Capital, Accounting and Finance, Logistics, Garage and Communication. The key to Nayar Systems' business model is to be able to adapt its products and services to the demands of its customers, offering them maximum **quality and flexibility**.

Nayar Systems firmly believes that **investing in talent is investing in innovation**, so its staff of professionals is progressively increasing year after year. This has led to the inauguration of the Nayar Systems Building, a historic building from the beginning of the 20th century, located in the heart of the city of Castelló, which has been completely restored, although respecting its post-war architecture of the 1940s. The building, in addition to becoming the **new offices of Nayar Systems**, stands as **one of the main research centers in IoT**, "Internet of Things", at the **national level**. With 2,000 square metres devoted to research, it has the capacity to house more than 200 jobs in the capital of La Plana.

## 2.2. Presence in Spain

Nayar Systems was established in 2007 in Castelló de la Plana. However, the company has a staff of salespeople who travel daily to any point in the Spanish geography to maintain continuous meetings with customers and / or potential customers, as well as with interesting strategic partners nationally and globally.



## 2.3. Internation expansion

Nayar Systems, after twelve years of professional trajectory, continues its growth through 31 countries all over the world: Spain, Germany, Andorra, Finland, France, Ireland, Italy, Norway, Netherlands, Portugal, Czech Republic, Sweden, Switzerland, United States of America, Mexico, Dominican Republic, Colombia, Peru, Bolivia, Chile, Algeria, Angola, Greece, Lebanon, Turkey, Baréin, United Arab Emirates, Singapore, Hong Kong and finally China, where it has recently landed opening a new office in Shanghai.

Alemania
Andorra
Austria
España
Finlandia
Francia
Irlanda
Italia
Noruega
Países Bajos
Portugal
República Checa
Suecia
Suiza

Estados Unidos de America

República Dominicana

México

Colombia

Perú

Bolivia

Chile

Grecia
Líbano
Turquía

China

Argelia

Baréin

Emiratos Árabes Unidos

Hong Kong

Singapur

Angola

## 2.4. Extraordinary team

A business philosophy based on talent makes Nayar Systems a strong advocate of human capital. The implication and daily effort of its human team makes possible the development of products and services that make life easier for its public. The company also has a flexible structure adaptable at all times to the demands of customers, thus achieving personalized attention of the highest quality.

# 3. Corporate Social Responsibility

## 3.1. Innovation and Quality

The Spanish Ministry of Economy and Competitiveness renewed in 2018 the recognition of t**he Innovative SME Seal** to Nayar Systems. An award for its innovation capacity, which, in turn, reinforced its corporate identity. The fact that the Ministry of Economy and Competitiveness of Spain gave it this recognition and, moreover, it was renewed two years later, meant an internal reinforcement of capacities, and an increase in motivation and the desire to continue working in order to remain at the forefront of innovation, maintaining its wide horizons.

For its part, it should be noted that transparency in its management is a fundamental value for Nayar Systems, allowing a relationship of trust with both suppliers, customers and strategic partners. The technological products of Nayar Systems are respectful with the environment CE marked. In addition, the firm 72 horas is registered as a national operator in the National Telecommunications Commission, being a leader i**n compliance with the European standard EN 81-28**.

## 3.2. Responsible internal management

The continuous training of its human team as well as respect for their human and labor rights are principles that govern the performance of Nayar Systems. They are the most important asset of the company, so the **recruitment of talent** to continue growing every day is a principle that the company takes special care, currently with a staff of 55 employees. In addition to internal training and creativity sessions, as well as annual internal conventions, the company promotes and attends a large number of networking days. Likewise, in its **constant search for professional synergies**, Nayar Systems is a virtual partner of Espaitec, the scientific, technological and business park of the Universitat Jaume I de Castelló; and collaborates assiduously with the CEEI de Castelló, where one of its headquarters has been located for several years, until the works of Nayar Systems Building were finished.

## 3.3. Specific Corporate Social Responsibility actions

Since Nayar Systems carries out a policy of Corporate Social Responsibility also based on one of the great commitments of the company: the social improvement of the province of Castellón through a continuous **recruitment of talent, support for training**, as well as **mentoring** projects that require their vision and experience. For this reason, Nayar Systems has carried out or is carrying out CSR actions which are detailed below:

**Move Up (2016):** Programme of entrepreneurs of CEEI and Diputació de Castelló, which helps the best entrepreneurial projects in the province to consolidate as companies. The CEO of Nayar Systems carried out the mentoring of several projects, allocating his time altruistically with periodic meetings to tutor them.

**Sponsorship of the XIII Premios Radio Castellón Cadena SER, category Jóvenes Valores (2016)**: The promotion of novel talent in the province of Castellón is a commitment for Nayar Systems and for this reason, the company decided to sponsor the category of Young Values in the XIII Premios Radio

Castellón Cadena SER 2016 in order to continue favouring the search for and promotion of talent in Castellón.

**Hackathon Castellón** (the editions of the years 2016, 2017 and 2018 already completed, and currently preparing the 2019 edition): With the ultimate goal of attracting talent, Nayar Systems, along with other pioneering technology companies in Castelló, have consolidated the most important meeting of programmers in the Valencia Region, held at the Universitat Jaume I de Castelló. In addition to the establishment of innovative synergies, the value of CSR is evident in the direct incorporation of each participant in a job exchange, also distributing economic prizes that enhance their continuing education.

**Sponsorship of the Geek Talent Awards (2017 and 2018):** Call to award the best technology-based business ideas, with accommodation, support and training to turn projects into real, viable businesses. Promoted by CEEI Castellón, it has been sponsored by Nayar Systems on both occasions.

**Sponsorship of CD actions in Castellón (2017 and 2018)**: Nayar Systems always supports entities that are important for Castelló society and, at a sporting level, the club experienced a very important stage with its promotion to Second Division B. Therefore, the company did not hesitate to sponsor exclusively the presentation of the children's book "History of Orellut", and to sponsor tournaments in Castellón Base.

**Transformation Process (2018)**: With the objective of continuously improving its internal processes with a workforce that increases annually, productivity in each job, the happiness of each worker, the creation of different management bodies and other matters of this nature, a profound transformation process was carried out in 2018 that counted, from its inception, with the vision of its stakeholders or strategic audiences. As a result of this transformation process, the Human Capital department was established in the company, now perfectly consolidated.

Transfer of space for the celebration of dissemination actions, at a cultural and technological level (2019): Since Nayar Systems Building has an auditorium with sufficient capacity to host training sessions, the company offers it to hold different events framed within the technological area. This is the case of the eComputing 2019 conferences, which are held in July of this year in the auditorium of the company's new headquarters.

# 4. Commercial trademarks

## 4.1. GSR · Gsm Smart Router



**GSR - Gsm Smart Router** is the **first IoT communications device for the elevation sector**, developed entirely by Nayar Systems. With an increasing volume of data the market demands a multipurpose device with higher speed, both processing and data transmission.

GSR - Gsm Smart Router offers a **360º solution** to meet needs such as:

- Compliance with **EN 81-28**.
- Connection to the elevator control and to other elements present in an installation such as the motor, the inverter, the door operator, etc
- **Telemetry** and **remote control**.
- **Wifi connection** for Advertisim.
- Product **customization**.

## 4.1.1. Technical features

The structure of the GSR - Gsm Smart Router is that of a complete computer, thus reinforcing the concept of **development platform** rather than that of a communications device in use.

- Wifi
- 4G connectivity
- Telephone SLIC
- Output 12V
- Ethernet
- CAN
- RS232
- USB Expansion
- Battery

## 4.1.2. Funcional features

The main application of the device is based on a **Linux operating system** adjusted to the needs of the product. The code is 100% owned by Nayar Systems, which allows great flexibility to customize the use of GSR - Gsm Smart Router thanks to its open source.

- **Modes of operation**: The potential of this device lies in its versatility and ease of use. The same equipment can be connected to a remote alarm and act as a GSM module, or act as a remote alarm itself connected to an audio module. It is compatible with both systems, and its configuration is quick and simple.
- **Tone Regeneration**: Its capabilities include an optimized algorithm for processing and regenerating DTMF tones. This is a great competitive advantage, as it significantly improves the transmission of tones without alterations in all applications.
- **OBBUS Protocol**: This is an IP device and has the ability to provide advanced solutions such as OBBUS communication. Thanks to this technology offers the alternative of sending commands and tones by means of data instead of using the voice channel. When a device receives them, GSR - Gsm Smart Router processes this information and generates the tones directly by means of commands, ensuring an unprecedented success rate and reducing programming times.
- **net4machines VPN**: In order to offer maximum security to the entire fleet of equipment of our customers, data transmission is encrypted by means of net4machines VPN. It has all the advantages offered by the platform and the assignment of fixed IPs of all equipment regardless of the mobile operator or geographical area in which the equipment is used.

## 4.2. net4machines



Nayar Systems brings IoT closer to the user through net4machines as **an industrial IoT service provider**. This firm will offer us **net4machines VPN**, a secure network that allows us to transmit the data recorded in each of the facilities. Also **net4machines Smart Control**, which through the management platform will process this data into **information understandable** to the user. **net4machines Smart Control** offers a dual service. On the one hand, **telemetry**, responsible for identifying the origin of the recorded data, and on the other, **telecontrol**, with which to control and configure the equipment remotely without having to travel to the installation.

# 4.2.1. net4machines VPN

**net4machines VPN** is a **virtual private network** (VPN) designed and optimized to interconnect all types of machines and devices over the Internet. It goes beyond the communication machine to machine (M2M), allowing to manage and monitor through the **online platform** all the machines and devices connected to the VPN network. It allows machines and devices connected to the Internet **anywhere in the world** to exchange information securely as if they were on the same local network, without the need for modifications to computer equipment.

There are three simple and quick **options** to connect a machine to the net4machines VPN:

- Installing the net4machines router. 
- Running the net4machines VPN client (64Kb) on the machine or device to be controlled remotely. 
- Using an operator's SIM integrated with the net4machines VPN.

The net4machines VPN works with all existing internet accesses on the market, providing important advantages:

- Total independence from the fixed/mobile operator.
- It uses any type of internet connectivity simultaneously (3G/4G, ADSL, satellite, WiMAX).
- Reduces data consumption by applying advanced streaming compression technologies.
- Manages and monitors machines and devices in any location or country.

The net4machines **router** allows you to connect any machine or device to the Internet (ADSL, 3G/4G, SAT, WiMAX ), facilitated by industrial interfaces such as RS-232, RS-485, CAN bus and Ethernet. Inside, the **Vmodem** software transforms analog communications into digital, solving the problems of **obsolescence of analog technology**:

- Incompatibility with fiber optic networks.
- High telephone bills for machines with hyperactive connections defect.
- Discontinuity in the manufacture of analog modems.
- Disappearance of the GPRS data network.
- Impossibility of monitoring in real time.

**net4machines** also allows total **control** and **online**:

- It manages in **an agile and simple way** the accounts, users, domains, structure, permissions, data compression, etc.
- It **monitors the status of the devices** in real time.
- Establishes **alerts** with alerts via email or SMS that inform about unexpected events such as disconnections, excessive network use, etc.
- **Access devices** without having to remember their IP, as they all receive a host name mapped on the Internet in our DNSs. 
- The **large capacity** of the net4machines VPN allows you to include all the necessary devices. 
- It allows to **organize** the devices in domains and subdomains and to specify permissions of access and visibility for a total security in the network.
- Hourly, daily, monthly and annual **statistics** for each device, relating to the data consumed and number of connections.

## 4.2.2. net4machines Smart Control

An industrial installation generates, through its components, a multitude of data. Data that, with the appropriate treatment, can be transformed into **valuable information** with which to **make objective and efficient decisions**. Aware of this, Nayar Systems has always focused its products and services to the **accessibility, understanding and usefulness** of this information, allowing the user to access it easily and simply. In short, to connect people with machines.

Through the Smart Control telemetry and telecontrol service, net4machines allows its customers to receive the data generated by its facilities processed, filtered and transformed into information. In a complementary way, the user is given the option not only to be a receiver, but also to be able to interact with the installation through the remote control of maneuvers through virtual consoles.

net4machines Smart Control:

- **Multi-brand tool:**
    - Manages devices from different manufacturers from the same platform.
    - Allows the comparison of data between devices from different fields.
    - Platform available through web and app (available for iOS and Android).

- **Telemetry:**
    - Analyze the data collected by your compatible devices from net4machines Manager.
    - Create alerts in real time about the events that occurred in the installation.

- **Telecontrol:**
    - Control and configure your computers as if you were in the installation itself.
    - Save costs and time by avoiding travel.

- **Expert rules:**
    - Configure the rules based on patterns adapting them to your elevator park.

## 4.2.3. net4machines Manager

The **data** recorded in the installation and processed with the **net4machines Smart Control** service is presented to the user through **net4machines Manager**, a management platform that allows for easy and comfortable interaction with the installations. Likewise, the **virtual consoles** currently available for remote management of elevator manoeuvres are also available on this platform.

net4machines Manager:

- **Access** from **web** and from **app**.
- Management and validation of **alerts**.
- **Creation of installation templates** to facilitate the use of the platforms.
- **Remote control** of your devices (maneuver, variator, etc.).
- Real time **monitoring**.

## 4.3. 72horas



**72horas** is the leading company in Spain specialising in **M2M communication** for the **elevator sector** and the **European leader** in the supply of **mobile lines and management of the EN 81-28 standard**. Registered as a national operator in the **Comisión Nacional de los Mercados y la Competencia (CNMC)**, it is the only platform that scrupulously complies with the European standard EN 81-28, having made Spain t**he European leader in safety**.

72 horas allows the installations to comply with the EN 81-28 standard, providing a telephone line that the passenger can use in case of emergency and on the other hand, allowing the lift technician to have visibility of the installation at all times through 72 horas Manager, as reflected in the community regulations.

The company offers **a proactive breakdown control service**, analysing the tele-alarm and GSM link warnings, contacting the customer before any type of failure or problem occurs in their lift park.

72 Horas is not just a supplier, it is a **technology partner** that provides global solutions to ensure customers safety, technological advancement and competitiveness. The firm offers:

- **Mobile telephony services** with multi-operator coverage that include calls to national fixed and mobile phones as well as to the intelligent network for compliance with EN 81-28, data and SMS for device configuration.
- **Supply of GSM devices**, optimised with our own software and with the latest technologies in the sector.
- **72Horas Manager**.
- Technical support to offer advice and resolve incidents.
- **Personalized developments** to give solution to the needs of each client.
- **Exclusive services**: Echo Test and telemetry.
- **Real time** information.
- **Logistics center** to ensure shipments to any point in Europe in a minimum period.

## 4.3.1. 72horas Manager

**72Horas Manager** is the only management platform in the European elevator market that allows working with **any type of remote alarm** or **bidirectional communication system** without the need for the customer to work with external modems or extra software. Available through web and app, its development has been based on the principles of **security, compatibility and technological innovation**, through a detailed study and analysis of customer satisfaction and optimization of internal processes.

The platform allows:

- Compliance **EN 81-28** fixed line + mobile.
- **Diagnosis** of the elevator fleet.
- Confirmation of **alerts and personalised warnings**.
- **Remote** and real-time **programming** of rescue teams.
- **Access** from any device through web and app.
- **Hyperactivity control** to avoid repetitive incidents and prevent excess consumption.
- **Management** of breakdowns, cancellation requests and communications.
- Order **track**.
- **Generation of reports** on the status of the park of lifts, as well as the operation of all contracted services.



## 4.3.2. Echo Test, the end of technical verification calls

Thanks to the 72-hour **Echo Test** system, all **rescue calls** made by technicians to verify the emergency system (cockpit pushbutton, microphone, loudspeaker and telephone line) are **fully automated**.

This system is activated by capturing a **QR code** found in the engine room. From that moment on, when the technician makes the cabin check call, the call is diverted to the 72-hour cloud.

With Echo Test, 72 Horas allows your customers:

- **Automate check calls**, decongesting offices and rescue services.
- **Record the voiceovers** made by the technicians in the cabin in real time and store them in 72

Horas Manager.
- **Verify and control that the technician has been in the installation**, determining day, time and time spent.
- **Receive a daily email** with the revisions that have been made.
- **Provide solutions for both fixed and mobile lines**, thinking about the future but without forgetting the existing installations.
- Its **activation or deactivation** through the Nayar Systems platform.

## 4.4. Advertisim



Advertisim is the first device on the market **with real-time connectivity** capable of displaying elevator information and advertising content, regardless of the country in which we are or the device is located. At the same time, it allows the user to be informed about aspects such as the vibrations of the car or the use of the elevator, so that the passenger's experience is excellent.

- **Visualization of floors and regulations**: Positional marking, arrows, RAE, capacity, CE marking, load, etc.
- **Visualization of special signals**: Overload signals, fault, call pictograms, inspection, etc.
- **Personalized headlines and warnings**: News display area (RSS feed) and personalized messages.
- **Floor description**: In addition to the positional, it allows to include plant description and image.
- **Meteorological information:** Display area with current weather information and three-day forecast.
- **Images and videos in HD:** In addition to the positional, it allows to include description and image of plant.
- **Twitter**: Twitter area with several accounts and hashtags updated in real time.
- **Multimedia news:** News visualization with photo for RSS that include images.
- **Image Editor:** Poster editing tool integrated in Advertisim Manager.
- **Flight and airport information:** Flight arrivals and departures, available at all airports worldwide.

Advertisim marks the difference in **connectivity**, being able to be 3G, wifi or Ethernet, being also compatible with CAN, 485 or binary connection, and allowing us to obtain the direct information of the control panel. For those models of old maneuver that do not allow us to connect directly to the control panel the new models include **accelerometer and magnetometer**, which allow the positional device to be independent of the maneuver. The autonomous learning process is only necessary during the installation of the device, since in case of temporary failure of the electrical supply the magnetometer is

able to recover the position of the cabin without the need to repeat the process.

On a hardware level, Advertisim has completed its portfolio of available models with a new product **completely integrated** with the control panel, designed for installation in new lifts. This is the Advertisim AIO 10I model, which facilitates the integration of Advertisim in the production chain of new cars and pushbutton panels.



## 4.4.1. Advertisim Manager

Advertisim complements its offering with **Advertisim Manager**, a **software** explicitly designed to remotely manage your global **communications** over a secure private network. A tool that allows you to conveniently and easily manage the **multimedia content** that will be shown in a particular way on each of the screens of your park of elevators, as well as to keep an **exhaustive control** of them. Not only images or videos, but also messages personalized by floors, voice synthesis, legal information (RAE number, number of people and weight allowed, smoking ban and specific elements according to the regulations of each autonomous community), general news channels in multimedia format, musical thread, etc. With Advertisim Manager, creating long-term **content** programming is really **simple**.

Advertisim Manager also includes an **image editor** that allows you to create simple compositions with a background color, text and visual content. With this tool you will be able to create visual warnings for the passenger without using any other type of software.

## 4.4.1.1. Advertisim Designer

Design your **custom skin**. Position the marking of floors, images, news ... wherever you want. Adapt it to the corporate image of your company to move your identity to the elevator cabin, providing **innovation** and **differentiation**. You can create as many skins as you need, according to your segment

of clients, model of cabin, etc. Any change in a skin will automatically spread to all those screens that already include it. Configure the skin according to your needs and update the screen in real time from your office.

## 4.5. Nearkey



Nearkey is a system for opening electric doors through the smartphone, **without the need for wifi or 3G connection and without annulling other opening systems.** Born in Nayar Systems Garage, the innovation department of the company, this access control system allows the management of users and groups in the cloud, ensuring **maximum security in the facilities**. Precisely, security is the most important value that the company attributes to this system, through the generation of keys by means of **elliptical curve algorithms**, as well as u**nique and non-transferable access keys** between users.

Nearkey's operation is simple and convenient, as it allows all doors to be opened from **a single application**, without the need for keys or physical controls. Likewise, the user has **absolute access control**, knowing who enters and leaves the installation; managing permissions from the cloud and being able to grant them **immediately**. The fact of having the power t**o restrict schedules** and grant temporary access, makes Nearkey an intelligent tool that gives added value to the user, who does not need Internet connectivity to ensure its proper functioning.
Nearkey allows the following:

- Asymmetric cryptography.
- Generation of public and private keys by means of elliptical curve algorithms.
- SHA256.
- Auditable code.
- Unassisted automatic OTA updates.
- Functioning without connectivity.

Its **applications** are multiple: public spaces, restricted traffic areas, social services, offices, elevators and common areas, as well as private housing. An economical, innovative and secure solution, created by Nayar Systems in its innovation department Nayar Systems Garage.

## 4.6. Nayar Systems Platform

A **common online platform** allows the user to access all the company's information through a **Single Sign On**, a single login. The result of an integration and intercommunication process, this tool, accessible from any browser and from the **Nayar Systems app** (available on iOS and Android), groups together all the platforms of the products and services developed by the different commercial firms of the company, aimed at offering an integral IoT service for the elevator sector. It also includes Nayar

Systems Store, an online store where you can purchase all the services and/or products. The Nayar Systems platform allows the total management of the installations in an **agile, comfortable and safe way**. Wherever and whenever you need it.

# 5. Nayar Systems Building

Nayar Systems Building is the **headquarters** of the company Nayar Systems and is located at 9 Casalduch Avenue in Castelló. Inaugurated in 2019, it has **2,000 m2 devoted to research, innovation, connectivity and talent.**

The building was designed by Francisco Maristany Casajuana at the beginning of the 20th century and had been abandoned for more than twenty years. Thanks to Nayar Systems, it was completely restored, although respecting its post-war architecture of the 1940s.

Nayar Systems Building has the capacity t**o house more than 200 jobs** in the heart of the city of Castelló. It is also one of the main technology centres specialising in the Internet of Things in the Valencia Region. During its twelve years, the company has shown that it is committed to talent, young people and the province of Castellón. For this reason, it takes large corporations such as Apple, Google or Microsoft as a reference, turning the property into a place where professionals **wish to work, and where creativity and innovation flow.**

Nayar Systems Building has **a slide** that connects the first floor and the ground floor, a differentiating element that encourages its 55 employees to enjoy their work environment and feel comfortable. Likewise, the basement of the building houses **a recreation area** where the staff can eat, rest and play, generating a positive emotional culture that allows for greater efficiency. Within the collaborative environment that the company has created to attract and retain talent, Nayar Systems plans to implement **a shuttle project** so that young people from Castellón with good ideas can start their dreams, being tutored by professionals with extensive experience.

The new offices also have an **auditorium** with capacity for more than 100 people, with the aim that the headquarters of the company becomes a place for talks and conferences where experts, both national and international, can share their knowledge with society. Capturing and processing technological knowledge is part of the company's DNA, and innovation is its fundamental pillar. For this reason, the company has **Nayar Systems Garage**, which is exclusively dedicated to research, testing and development, in order to keep its capacity to innovate alive.

For all these reasons, Nayar Systems Building is the most powerful IoT research centre in the Valencia Region and one of the most cutting-edge **business and technological headquarters at national level**, both in terms of the innovative offices and the 2,000 m2 devoted to research and development of IoT solutions in the elevation sector.

# 6. IoT&Elevators

It is **the magazine of Nayar Systems**, specialized in Internet of Things in the elevation sector. Published every six months, the magazine is completely free both for those who receive it and for those companies that decide to publish their articles or advertisements, as its aim is to disseminate **technological knowledge** and give voice to all agents who wish to share their professional experience and success stories.

The level of diffusion of the magazine is mainly the sector of the elevation and in more than 40 countries, being very important in the **European environment**. Nayar Systems assumes the expenses of this six-monthly magazine, sent nominatively to 5,000 executives and directives related to the **lifting sector and industrial IoT**.

The magazine is available in digital and printed versions. To date, Nayar Systems has published three issues of IoT&Elevators, dealing with the following topics: I**oT in the lifting sector**, **Cybersecurity and Artificial Intelligence**. The company is currently preparing its fourth issue, which will focus on the concept of **Smart Cities**, and will be presented in October at Interlift 2019, the world's leading trade fair for the elevator sector, held every two years in Germany.
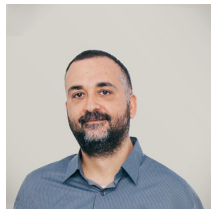
# 7. Partners

**Alexis Nadal**: Management, CEO
anadal@nayarsystems.com

Visionary and ingenious, he glimpsed an idea and launched the Nayar Systems project. A tireless fighter and born leader, he guides the team transmitting positive values and serenity. He develops with commitment and professionalism any project that comes between hands, he never lacks a smile, and he is always ready to offer the best version of himself and to make the most of the talent of others.

**Pepe Aracil**: Management, CTO
pepe@nayarsystems.com

Passionate about 'playing with technology', his extensive knowledge allows him to shape any project effectively. He is a constant generator of ideas, a perfect piece in the framework that constitutes Nayar Systems, for its marked resolutive character. Attentive and observant, he spends his time researching, testing and developing, identifying constant opportunities to innovate.

**José Luis Sanchis**: Management, CMO
jlsanchis@nayarsystems.com

restless and creative mind where there is one, to whom nothing is put before. A torrent of security and confidence in himself and his team, which combines illusion, positivism and does not understand impossible. Charismatic and nonconformist. Analyst and strategist. He is a great manager of commercial projects, covering the needs of the clients with closeness and confidence, being very loved and respected by them.

**Vicenta Ferrer:** Management, COO
vferrer@nayarsystems.com

benchmark of tenacity, commitment and rigour. His perfectionism makes him take care of even the smallest detail of the functions he performs, ensuring that everything goes according to plan. Methodical and ingenious. Empathetic and curious. Her high resolving capacity allows her to manage any matter efficiently, becoming an indispensable figure for the company and for all the people who form part of it.

# 8. Career de Nayar Systems

Below are a series of relevant items in the professional career of Nayar Systems.

**2007** - Nayar Systems starts its business activity and the business grows progressively.

**2008** - First 100 lines supplied.

**2009** - 3% of the national park of lifts complies with the European standard EN 81-28 thanks to the signature 72 Horas.

**2010** - Nayar Systems increases its workforce by 20%.

**2011** - Nayar Systems is awarded as Company of the Year R+D+i of the Premios Mediterráneo Castellón.

**2012** - Nayar Systems is awarded the CEEI Prize for innovative business trajectory.

**2013** - Nayar Systems strengthens its corporate identity, restyles its corporate visual identity, and establishes a new vision and strategic mission.

**2014** - Nayar Systems launches Advertisim. This same year Advertisim is finalist in the National Inspirational Awards in the category Digital Media.

**2015** - Nayar Systems is awarded the STC prize and promotes its expansion in the American market after its stay in Silicon Valley. This same year it launches net4machines. In August the National Association of Spanish BICs - ANCES recognizes Nayar Systems with the seal Innovative Technology-Based Company - EIBT. At the beginning of November the Focus Innova SME CV 2015 award is given to the Entrepreneurial Trajectory, granted by the Institut Valencià de Competitivitat Empresarial - IVACE and the Red de Centros Europeos de Empresas Innovadoras de la Comunitat Valenciana.

**2016** - Nayar Systems increases its staff considerably, reaching the figure of 40 employees, which means that it has to move its R+D+i department to a 'satellite' building until the works on its new offices are completed. Likewise, it increases its Sales Department, incorporating new permanent sales forces both in the national and international territory -specifically in Germany, joining Portugal-. In addition, Nayar Systems is firmly committed to carrying out and/or participating in CSR actions, among which are Geekhubs or Move Up; organizing, in turn, the first meeting of programmers in the province -Hackathon Castellón 2016- and sponsoring the category of Young Values in the XIII Radio Castellón Cadena SER Awards.

**2017** - Nayar Systems celebrates its tenth anniversary. The company already has the construction license to begin the reconstruction of its new offices, which will become a great research center on IoT. Nayar Systems bets again on Hackathon Castellón and celebrates the second edition of this successful event for programmers. In addition, the company launches IoT&Elevators, the new industry magazine, and attends Interlift 2017 presenting an innovation that represents a revolution in the telecommunications sector in the elevator world: its GSR device.

**2018** - Nayar Systems renews its Innovative SME Seal awarded by the Ministry of Economy and Competitiveness. This same year, Nayar Systems Garage presents Virkey, its new commercial firm based on access control. The works of Nayar Systems Building continue their course and the staff continues to grow remarkably. The company is betting on a third edition of Hackathon Castellón.

**2019** - Nayar Systems opens its new offices: Nayar Systems Building. 2,000 m2 dedicated to research, innovation, connectivity and talent. The current 55 employees of the company move to the new world headquarters during the summer. The company is the exclusive sponsor of a sectorial Conference on elevators in Castelló, preparing its participation in a new edition of Interlift 2019 and the organisation of the fourth Hackathon Castellón. It has also been awarded the COPE Castellón Prize for 'Business Creativity and Internationalisation', as well as the runner-up prize for 'Digitalisation and Innovation' in the SME Award 2019, organised by the Spanish Chamber of Commerce, the Castellón Chamber of Commerce and Banco Santander España.

# 9. More information

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