NurseCare
World's most advanced IP nurse call system
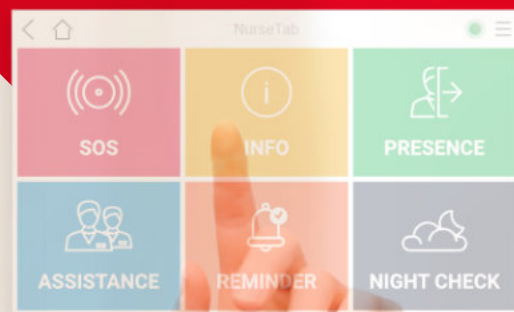
Caretronic
SINCE 1962

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Introduction

In this document we would like to point out the main challenges the hospitals are facing in the scope of the nurse call system and further in the document describe how the solution we are offering answers all of the mentioned challenges and fulfils their requirements.

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# Challenges and Requirements of hospitals

1. The existing emergency call and response system relies on the close proximity of specialist support and can lead to multiple specialists responding unnecessarily to the same emergency or unacceptable delays in specialist attendance.
2. The lack of a back-up system in case of failure.
3. The lack of the feedback on the emergency response in real time.
4. The existing system is found to be highly stressful by attending staff and for emergency responders and moreover to introduce risk of severe complications for patients.
5. Solution enabling a 24/7 alert pathway informing the most appropriate medical specialist of the nature and location of the emergency and directing them to where they are needed, minimizing delays in the response time and avoiding the duplication of response.
6. A feedback mechanism on the call response for those in the emergency situation and for the emergency responders.
7. Data collation and analysis of the emergency call and response events to support ongoing learning and further improvements in the system, clinical practice, patient outcomes and utilisation of staff resources and well being.

The solution should be:

8. able to handle multiple events occurring simultaneously,
9. seamlessly introduced into existing operating theaters, emergency departments and intensive care units throughout the hospital and fully integrated with other hospital systems.
10. 100% reliable and resilient in the hospital environment, intuitive to use and compact Low carbon, low noise, simple and safe to clean, and easy to maintain,
11. transferrable and easily implemented in a range of hospital situations.

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The solution

The solution that addresses all of the above mentioned challenges is **NurseCare, world's most advanced IP nurse call system.**
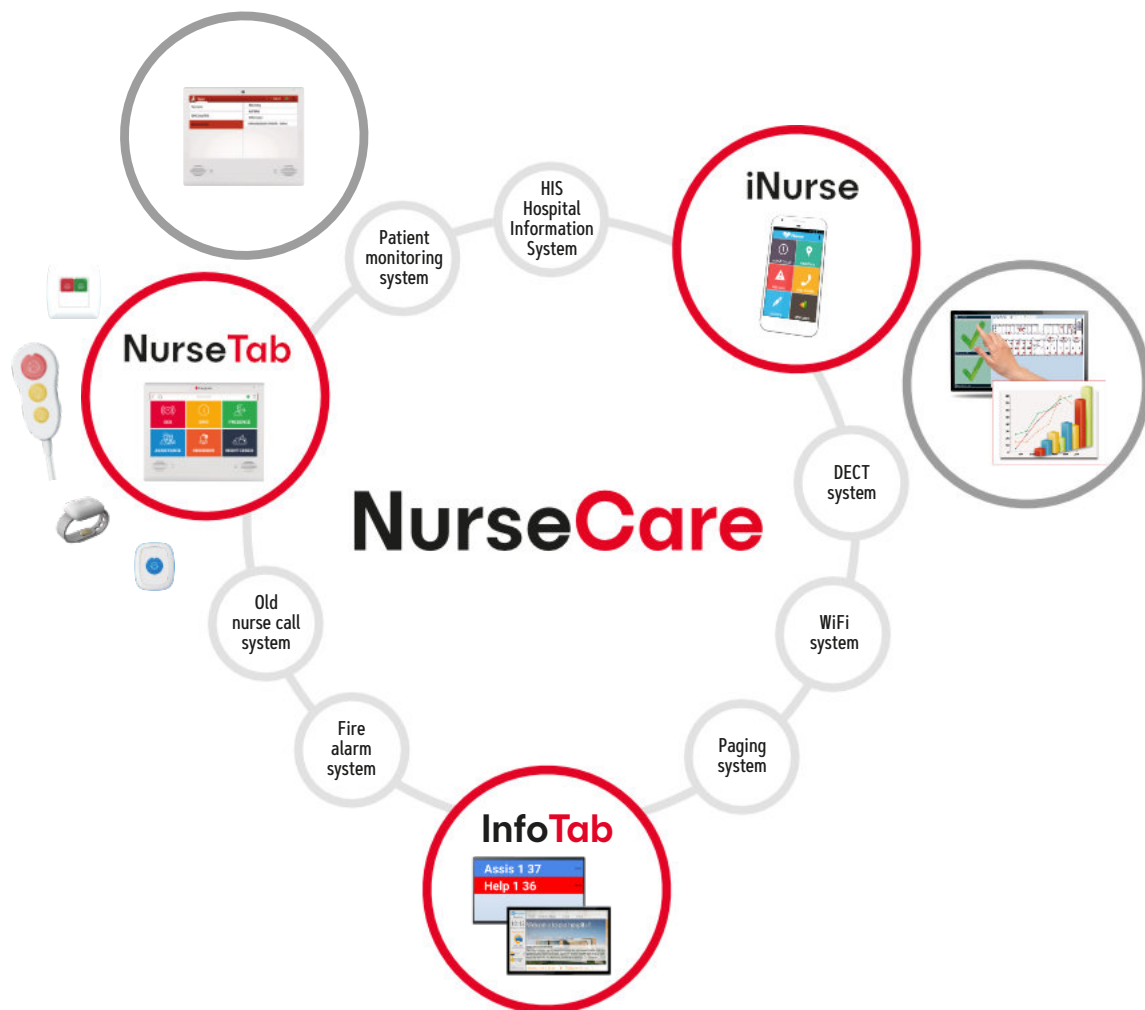

NurseCare is an intelligent communication system for healthcare institutions and the only nurse call system on the market that combines an emergency nurse call system with healthcare management and nursing documentation in one device.

NurseCare system is designed and structured in a way that **highly optimises work processes** in hospitals, **greatly improves their overall communication** and thus **improves health-care services** towards patients in a great manner.

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IP BASED NURSE CALL SYSTEM

NurseCare system provides a wide range of different nurse call buttons that are covered with **antimicrobial foil, simple and safe to clean** and **prevent the unwanted spread of bacteria. It solves hospital challenge by providing a system that is simple and safe to clean and easy to maintain.**
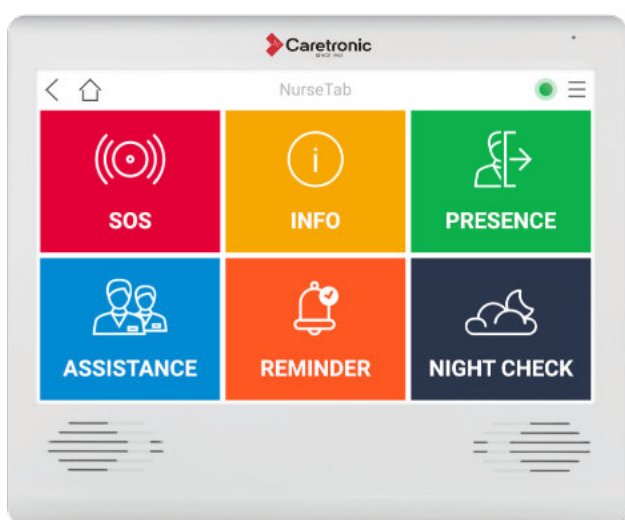
The heart of the system is **NurseTab,** an IP based modular touch-screen room terminal, located in every patient room.

NurseTab enables the following nurse call features:

- emergency call
- assistance call
- presence confirmation
- ID protected code blue call
- night check of the patients
- setting reminders for nurses
- display of calls from other rooms
- speech connection room-wise (to the nurse station terminal/smartphone app)
- selecting the reason of a call when exiting room (for later data analytics)

With NurseCare a nurse can immediately be alerted, **no matter where she is,** allowing her to respond to a call **in a matter of seconds.** It also **notifies other caregivers** that the call has been answered and by this solves **hospital's challenge with feedback mechanism on the call response for those in the emergency situation and for the emergency responders.**

The system enables the call to be routed **to the appropriate health-care specialist, who is the nearest to the point of call,** in order to respond as fast as possible, notifying all other staff members the call has been answered. **This also covers one of the hospital challenges**

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of informing the most appropriate medical specialist of the nature and location of the emergency and directing them to where they are needed, as well as minimizing delays in the response time and avoiding the duplication of response.

The call can be **routed to various locations and devices:**

- NurseTab room terminals in other patient rooms where the nurse is actively present,
- door lamps over the patient rooms,
- our smartphone application iNurse,
- our interactive IP corridor display InfoTab,
- NurseTab touch-screen terminal for nurse station,
- existing communication devices if any (pagers, DECT, telephones …)
- as an SMS message or email.

All of the above-mentioned call receipt services can handle an unlimited number of multiple events occurring simultaneously that are shown on devices on a priority based list and can therefore also solve this hospital's challenge.

MOBILE APPLICATION INURSE

Smartphone application **iNurse** represents **an advanced replacement for the DECT phone or a pager.** The healthcare personnel will be able to respond to emergency calls via iNurse even when they are not present in the nurse station.

iNurse mobile app offers an overview of personnel in attendance, and an option to **establish an assistance call between the personnel** that can communicate **without a SIM card** and an option to **establish/answer the call directly from the patient room/bed.**

User can confirm the call has been acknowledged and other team members can directly see the acknowledgement, **avoiding the duplication in response, which now presents one of the hospital's challenges.**

In emergency situations iNurse offers a **one- touch call for the reanimation team,** which can attend to the patient in need of an emergency medical treatment as soon as possible.

Additionally, iNurse offers unique functions (notifications, etc.) that can be customised and personalized.

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INTERACTIVE IP CORRIDOR DISPLAY INFOTAB

InfoTab is an innovative IP corridor display that indicates the location of the nurse call down to the specific bed, the attendance of the healthcare staff in the room, the assistance call, and offers on-demand content. It enables the **possibility to display department specific notifications only in designated departments/ buildings, which is very convinient for hospitals with different departments or for those who are spreaded even among different buildings.** When there is no active call, the display can show daily activities, information, weather, menus, and optional content. When a nurse call is active, the display exclusively shows the call. Character numbers and types of content are unlimited, enabling the user to determine which content should be displayed, and change the content via the simple-to-use web interface.
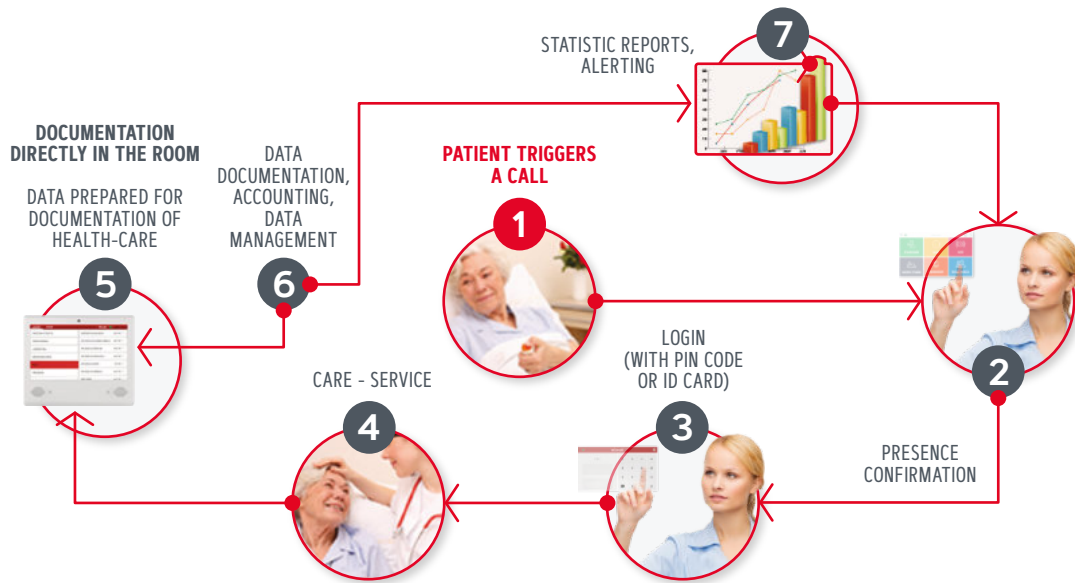
DIGITALIZATION OF HEALTH-CARE PROCESSES

NurseCare IP system offers management and documentation of all services performed in a room of a resident/patient directly on-site where the service has been performed – in the very room, via the NurseTab room touch display.

One of the most important features of the touch screen room terminal NurseTab is that it **provides staff identification** (via their existing RFID ID cards / via smartphone / via special Tag / via PIN code). In this way the system always knows:

- **which nurse** is in the patient room,
- what was **the response time,**
- **how much time** the nurse spent in the patient room,
- **which health-care services the nurse has provided** to the patient.

The NurseTab device provides a **customised list of all health-care services** the hospital is documenting and entering into their existing Hospital Information System (HIS). When a nurse enters the room, the patients in the room are already preselected on the device and notification what health-care plan is set for them is already displayed on the screen. Nurses can then perform their service and easily document every task directly from a patient's room, logging it through the NurseTab terminal. It is a **simple, fast and most reliable way** to document the health-care services done **at the point of care.** This removes **the possibility of documentation errors, information loss and endless document searches.**
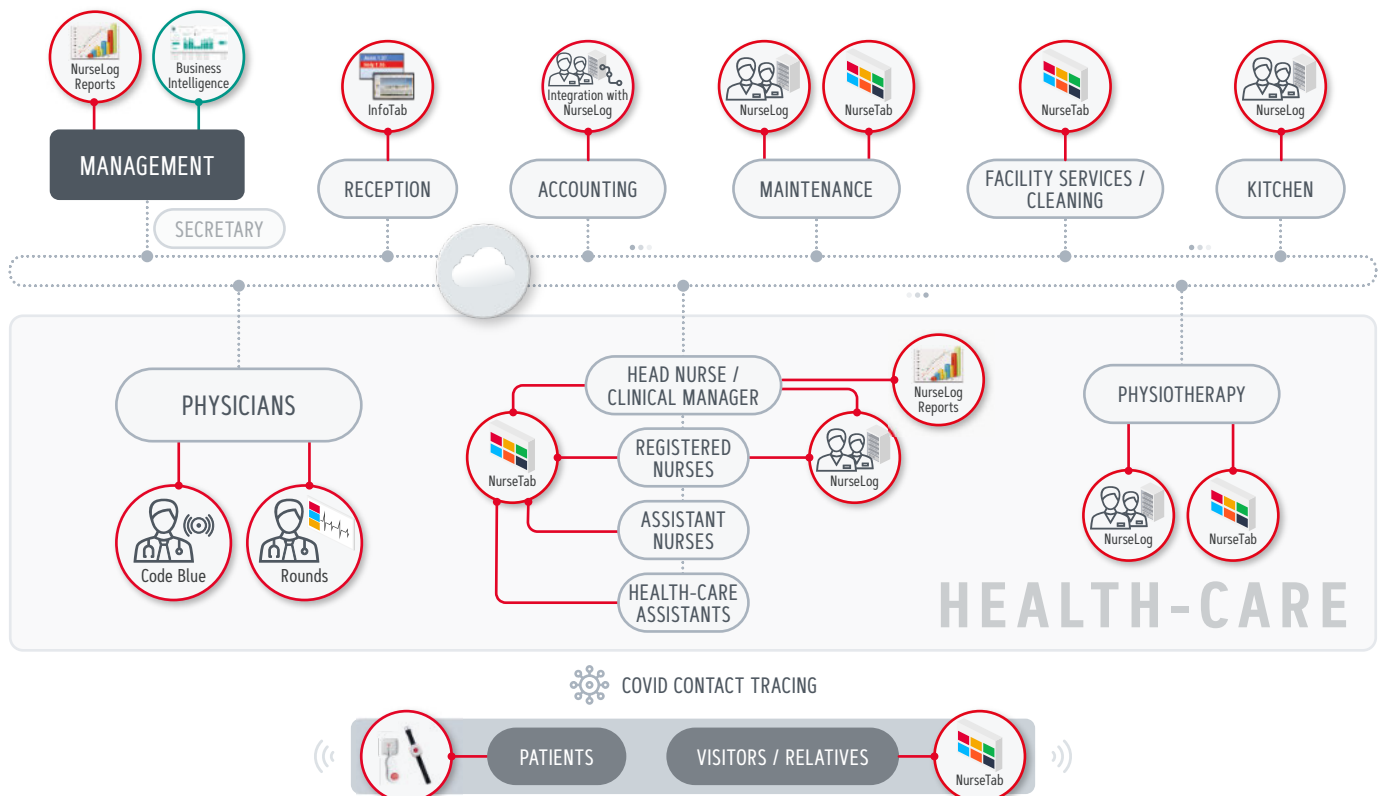
Furthermore, the data update is then **synchronized with the existing Hospital Information System,** negating any duplicated data. This way the system also saves a lot of nurses' time by reducing manual documentation and manual entering of documented data into the HIS.

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STATISTIC REPORTS, ALERTING — **7**

DOCUMENTATION DIRECTLY IN THE ROOM

DATA DOCUMENTATION, ACCOUNTING, DATA MANAGEMENT

PATIENT TRIGGERS A CALL — **1**

DATA PREPARED FOR DOCUMENTATION OF HEALTH-CARE — **5**

6

LOGIN (WITH PIN CODE OR ID CARD)

CARE - SERVICE

4

3

2

PRESENCE CONFIRMATION

Nurses can also **plan new tasks, set reminders, request patient transport** and even **notify fellow staff.**

Janitors can, for instance, receive a notification that a toilet desk needs fixing, while the **cleaning lady** will get informed of a toilet requiring cleaning. They can then also **document the task performed** directly on the NusreTab device by logging in with their unique ID.

 NurseCare system therefore solves the hospital's challenge of being transferable and easily implemented in a range of hospital situations, by enabling the usage of the system to a different kind of hospital staff in order to provide the highest level of the healthcare, better patient outcome and utilisation of staff resources and well being.

NurseLog Reports | Business Intelligence

MANAGEMENT

SECRETARY

InfoTab — **RECEPTION**

Integration with NurseLog — **ACCOUNTING**

NurseLog | NurseTab — **MAINTENANCE**

NurseTab — **FACILITY SERVICES / CLEANING**

NurseLog — **KITCHEN**

PHYSICIANS

Code Blue | Rounds

HEAD NURSE / CLINICAL MANAGER

NurseLog Reports

NurseTab

REGISTERED NURSES

NurseLog

ASSISTANT NURSES

HEALTH-CARE ASSISTANTS

PHYSIOTHERAPY

NurseLog | NurseTab

HEALTH-CARE

COVID CONTACT TRACING

PATIENTS | VISITORS / RELATIVES

NurseTab

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FULLY INTEGRATABLE ALARM MANAGEMENT PLATFORM

Hospitals have to meet the high requirements of operating and safety regulations, often having limited resources. The optimization of processes, and consequently also the costs involved, is therefore crucial.

Effective alarms are vital to safety and efficiency. Each alarm requires staff action, but sometimes the nursing process and pipelines are overwhelmed with nuisance alarms that cover the critical ones. When too many alarms overwhelm or cause complacency issues get lost in the noise.
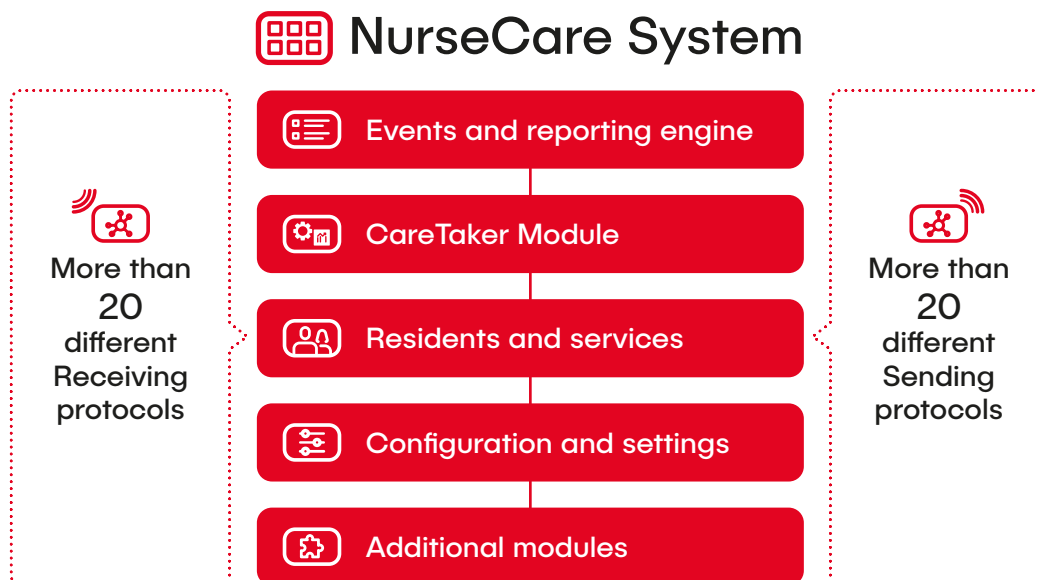
How can alarms be managed more effectively?

A quick and efficient processing of alert and stand-by messages with Alarm management platform **NurseLog** can contribute to saving lives. The platform **sends alarm on various devices** (existing or new pagers, DECT phones, smart phones, nurse station terminals, patient door lamps, corridor displays etc.) within seconds. It is able to **handle multiple events occurring simultaneously** and provides an appropriate **escalation plan** in order that the most appropriate medical specialist is notified immediately with direction to where the help is needed - this **minimises delays in the response time** and **avoids the duplication of response.**

The Alarm management platform with **more than 20 different incoming and outgoing communication protocols** enables **integration of various communication systems** within the hospital (fire alarm, patient monitoring system, building management system, telephony, DECT, paging and other hospital systems). It can **handle multiple events occurring simultaneously** and **can be seamlessly introduced into existing operating theaters, emergency departments and intensive care units throughout the hospital.**

NurseCare can be installed **in any existing or new building** and be **connected to an existing nurse call system of any brand** with the use of available installation infrastructure. **Furthermore it also solves hospital challenge of being fully integratable with other hospital systems by enabling a large integration possibilities with other communication systems in the building.**

⊞ NurseCare System

More than 20 different Receiving protocols

- Events and reporting engine
- CareTaker Module
- Residents and services
- Configuration and settings
- Additional modules

More than 20 different Sending protocols

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ADVANCED REPORTING SYSTEM

With NurseCare managers and head nurses gain **a full workflow overview:**

Full-identification creates an event log, giving insight into **which nurse** was in **which room** at **what time,** the **task she took care of** and **for how long.** It shows **which patients take up the most time** and **which require the greatest care.** It displays **which time of day has the biggest workload** and **which employee takes care of most tasks.** It also **alerts staff** when a task requires immediate attention.

Hereby the system **solves the hospital challenge in a way that the data collation and analysis of the emergency call and response events is being done on a very high level.**

The data, gathered in the system, can be used for further analysis, including **business intelligence reports** in order the hospital gets a really clear overview of services provided in the hospital.

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HIGH SECURITY OF THE SYSTEM

The NurseCare system **complies to the most demanding security standards** for nurse call systems (among others also German standard DIN VDE 0834 part I and II). All system components are **continuously supervise**d and the system immediately reports if any of the devices fails.

For the **purpose of backup,** the system enables a **hot standby option,** meaning in the event of an unexpected (rare) occasion of server failure, a second server can replace the functionality of failed one. Even if the server of the system fails, **the system is still operating to a limited extent** without the server. All notifications, emergency calls and code blue calls are **still being forwarded** to the call receiving devices. Therefore the server **doesn't present a single point of failure.**

In this way the system solves another hospital's challenge by being 100% reliable and resilient in the hospital environment.

FUTURE READY SYSTEM

NurseCare system is ready for the future by it's modular structure, allowing new functionalities to be added or upgraded any time in the future.

The manufacturer of the system is **Caretronic,** a Slovenian company that has been present on the market since 1991 with roots already in 1962. The main activity of the company has always been advanced information and communication solutions for hospitals, nursing homes, and other healthcare organizations. Company's extreme flexibility, and constant adaptation to the wishes and needs of the market makes it possible to adapt products locally.

With Caretronic solutions, the company strives to make sure that every patient, the elderly and people employed in healthcare feels at ease, and that effective assistance will be provided at all times. With their solutions, the company strives to ensure that nursing staff can effectively and free of administrative work devote themselves completely to their primary tasks – care and treatment.

Caretronic solutions promote raising quality in healthcare, and optimize work processes in healthcare and nursing organizations. The self-developed NurseCare system is the leading system in the Slovenian market, and is already installed in numerous foreign countries across Europe and the rest of the world.
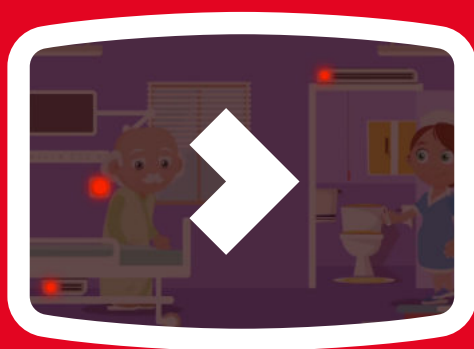
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OUR PRESENTATION VIDEO

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