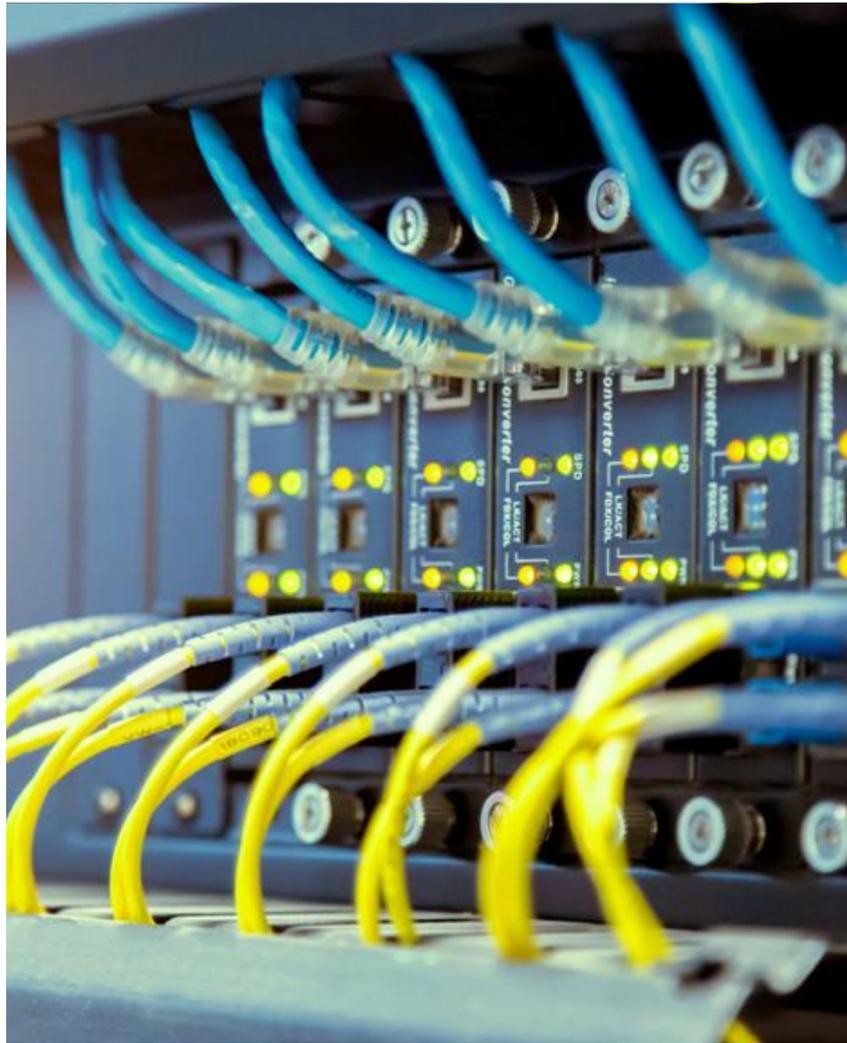


TRANSTEL

Brand New IP-Digital Nurse Call System





THE SEAMLESS INTEGRATION OF IP AND DIGITAL COMMUNICATION

The next-generation nurse call system integrates two mainstream communication methods: IP and digital. IP communication is utilized in the backbone network for easy scalability and remote accessibility. Digital communication is employed at bedside intercoms and call panels to reduce wiring, lower maintenance costs, enhance reliability, and conserve valuable energy resources.

HYBRID



Scalability



Reliability



Energy
Efficiency



Nurse
Station

System components

The equipment at the nurse station includes a communication server host **NCS1** capable of connecting to 100 rooms/1000 beds, one (or two) system indicator boards **NSD** hanging in the corridor, and up to 6 nursing station console **TK26**.

When a room presses the call button or assistance button, the nursing station console and the system display will simultaneously display the room/bed number of the caller and the category of the request. The console will also provide voice prompts.

NURSE CALL SYSTEM

System Display **NSD**



Host Server
NCS1



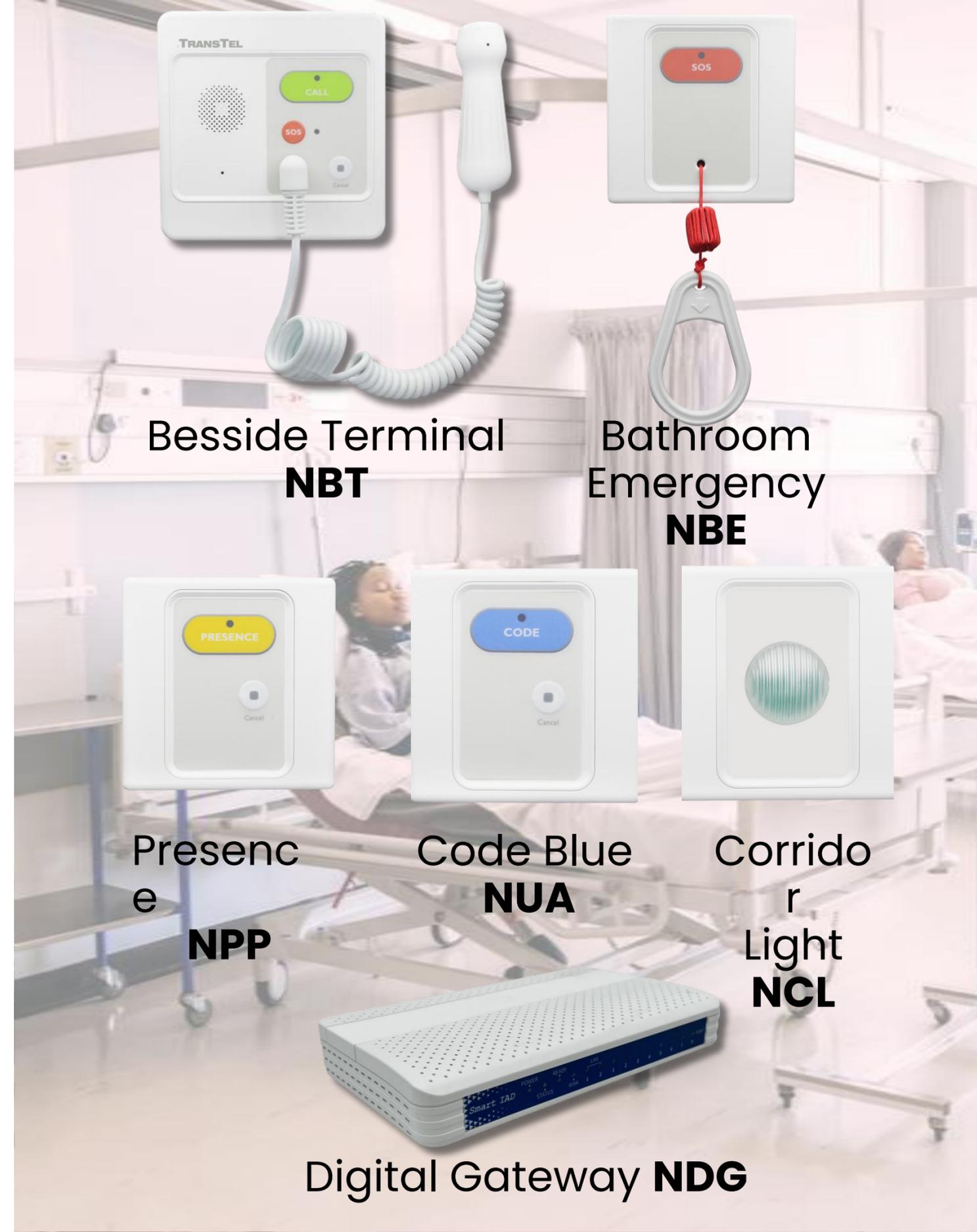
Console **TK26**



Ward

System components

The equipment at the patient room end includes the bedside terminal **NBT**, allowing patients to communicate with the nurse station with a single button press. The ward round panel **NPP** informs the nurse station about the progress of doctor rounds. The code blue panel **NUA** notifies the nurse station when urgent support is needed in a particular room. The waterproof bathroom emergency call panel **NBE** enables patients to pull a cord or press a button to notify the nurse station when assistance is required. All these calling and reporting panels are connected to the nurse station server via the digital gateway **NDG**, utilizing IP communication. Each NDG can connect up to 8 sets of panels.



Bedside Terminal
NBT

Bathroom
Emergency
NBE

Presence
NPP

Code Blue
NUA

Corridor
Light
NCL

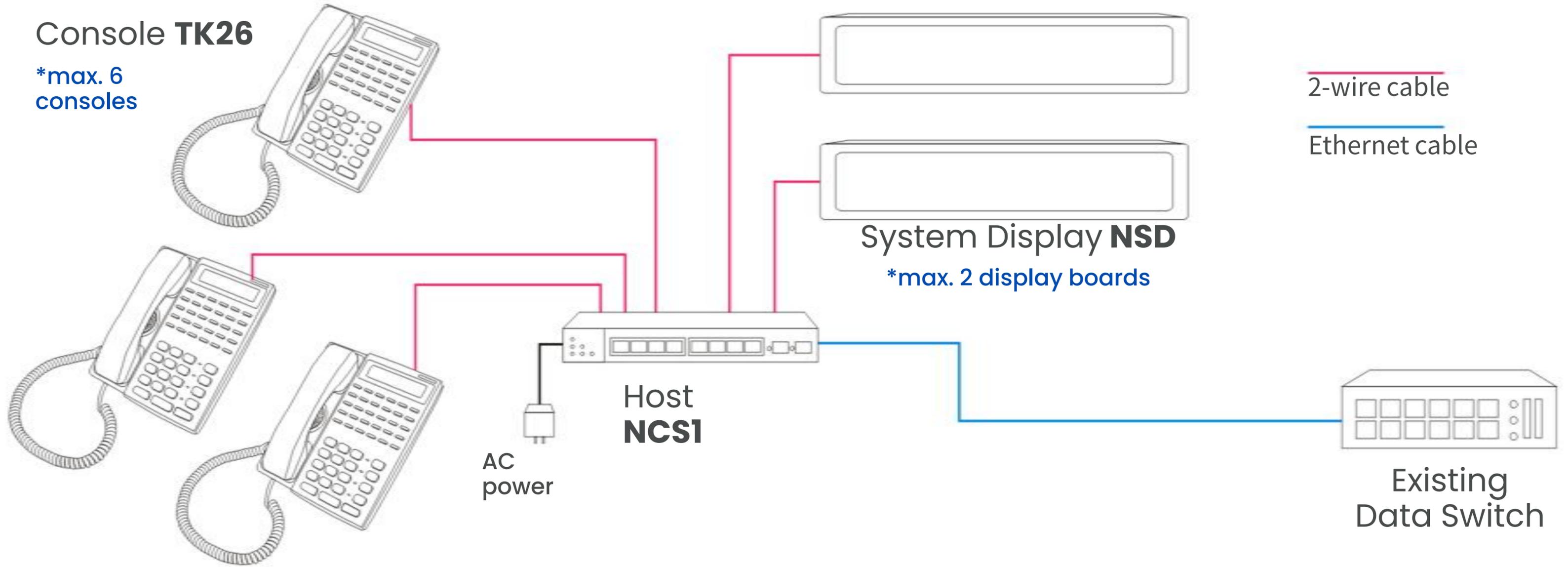
Digital Gateway **NDG**



Connection Diagram Nurse Station

Console **TK26**

*max. 6
consoles





Connection Diagram Ward

— 2-wire

— Ethernet

— 4-wire

Existing
Data Switch

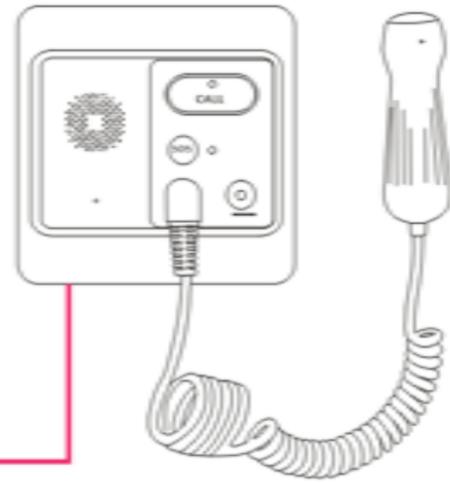


AC
power

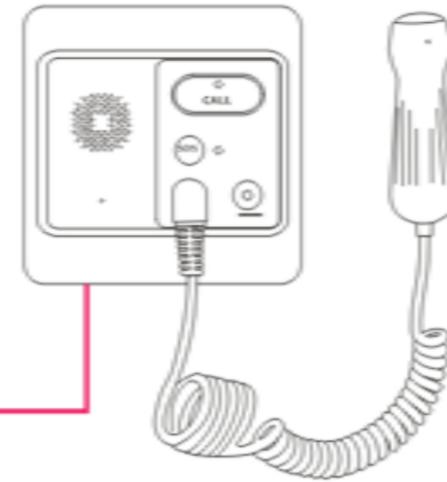
Digital Gateway
NDG



Bedside Terminal
NBT



Bedside Terminal
NBT



*A single digital gateway
can accommodate
connections to 8
bedside terminals

*Each bedside terminal
can be externally
connected to peripheral
panels.

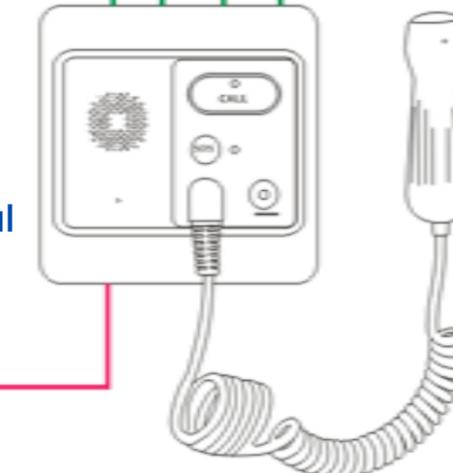
Code Blue
NUA



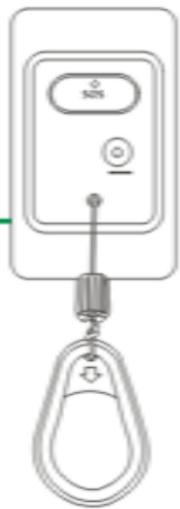
Corridor
Light
NCL



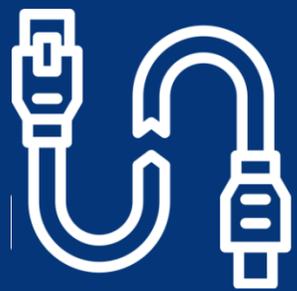
Presence
NPP



Bedside Terminal
NBT

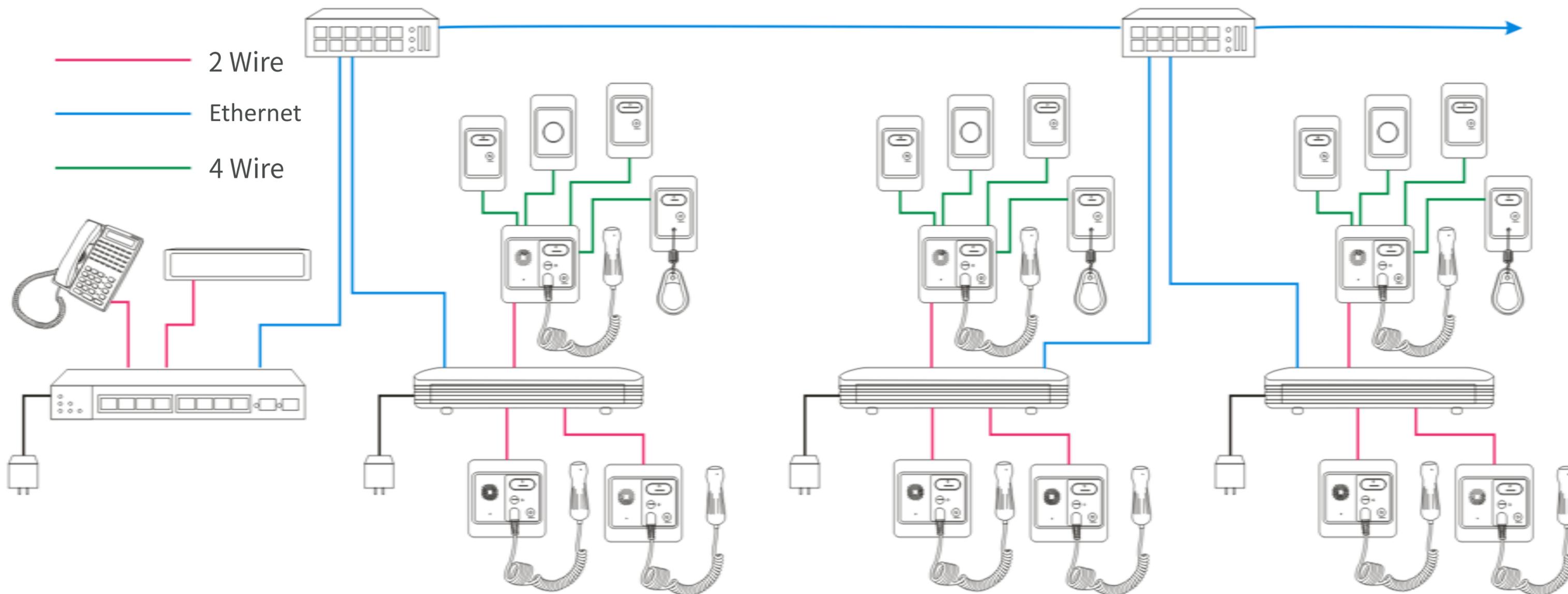


Bathroom
Emergency
NBE



Connection Diagram (Using hospital network system)

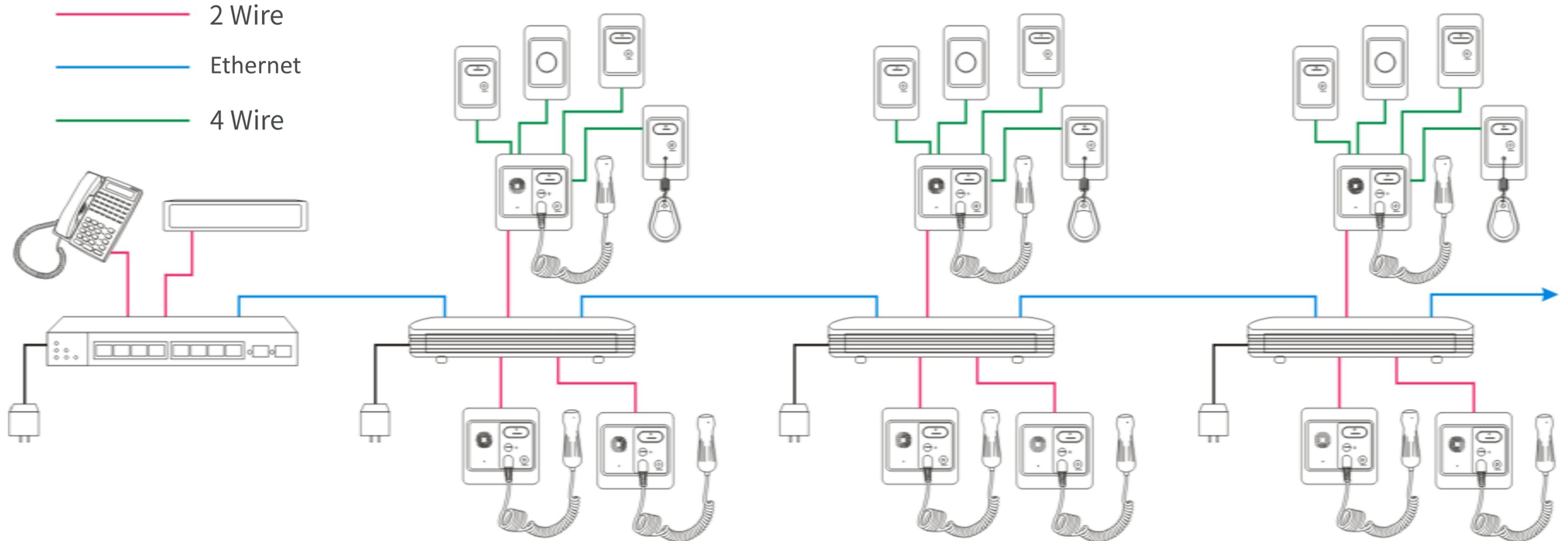
The backbone network utilizes the hospital's existing Ethernet infrastructure, with the NCS1 host and NDG digital gateway both integrated into the hospital network system.

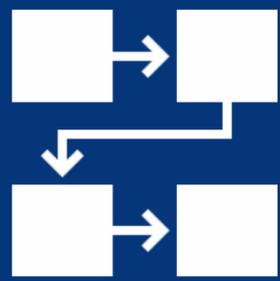




Connection Diagram (Independently wired)

The backbone network is independently wired, with the digital gateway WAN connecting to the LAN, serially linked all the way, thereby not requiring integration into the hospital network

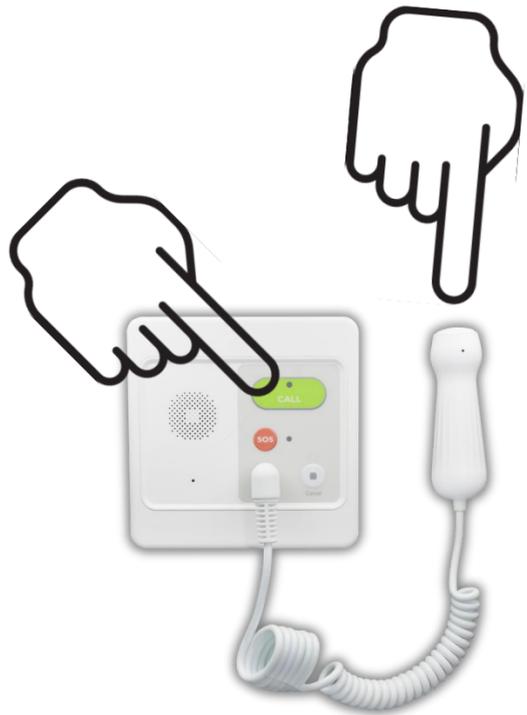




Nurse Call Flow

The system indicator board displays the bed number

203A CALLING



Pressing the call button on the panel or the call button on the handle

The console broadcasts the bed number via audio

The console LCD displays the bed number

203A calling

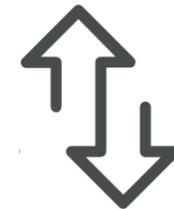
203A CALLING



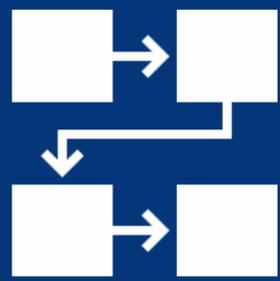
The corridor light illuminates a green signal



The nurse station picks up the handset to communicate with the patient's bed



The microphone is located on the handle



Bathroom Emergency Call Flow

(SOS and Code Blue flows are similar)

The system indicator board displays the room number

203 BATHROOM

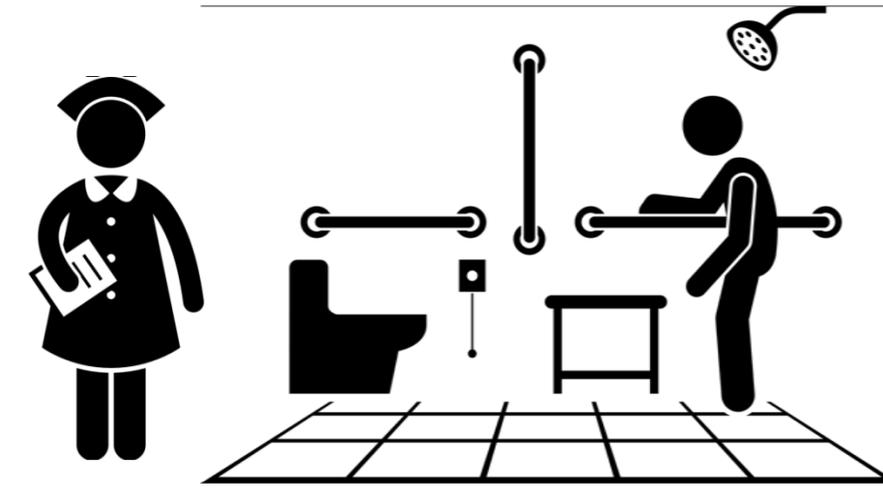
The console broadcasts the bed number via audio

203
Bathtoom

The console LCD displays the room number

203BATHROOM

Medical staff respond to the emergency in the bathroom



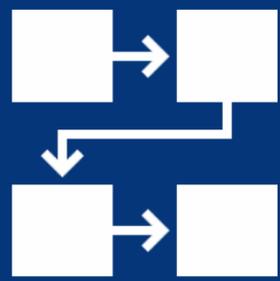
Pressing the SOS button on the panel or pulling down the emergency cord

The corridor light flashes a red signal



Pressing the cancel button on the panel deactivates the alarm at the nurse station

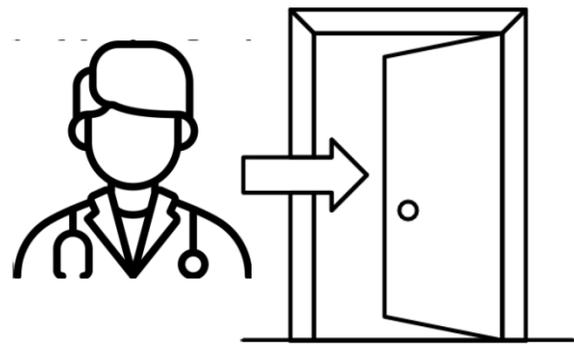




Doctor Rounds Flow

The system indicator board displays the room number

203 PRESENCE

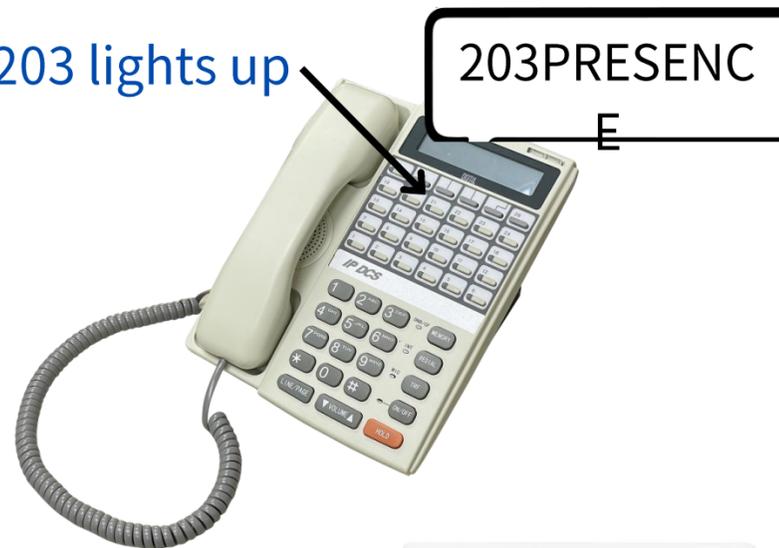


After entering the patient's room, the rounding physician presses the presence button



The console LCD displays the room number

203 lights up



After examining the patient, the doctor presses the cancel button on the panel before leaving the room. Subsequently, the indicators at the nurse station and the entrance extinguish

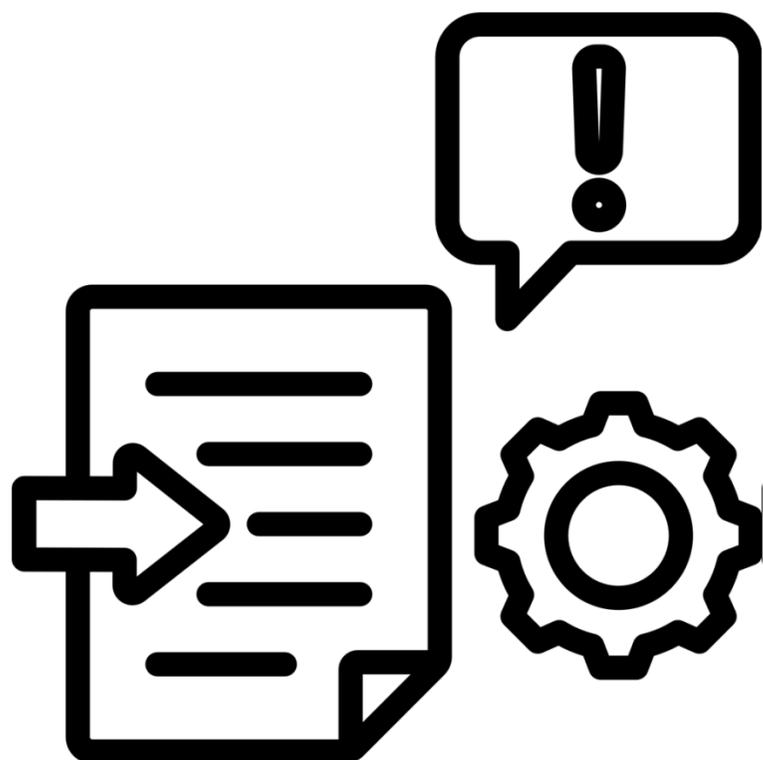
The corridor light illuminates a blue signal indicating the presence of a doctor inside

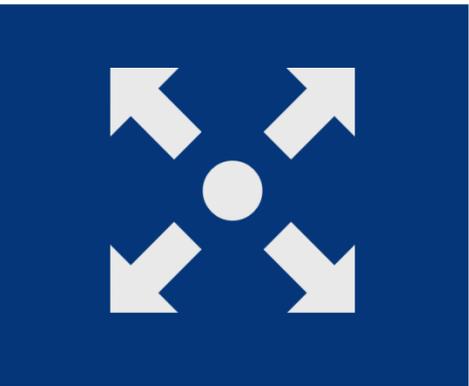




METICULOUS DOCUMENTATION

All calls and responses in the system are meticulously documented in the system log. Additionally, all conversations between patient rooms and the nurse station are recorded in their entirety for future reference and inquiry when necessary.

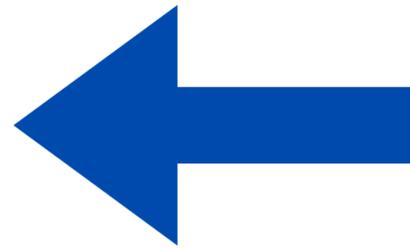




EXPANSION

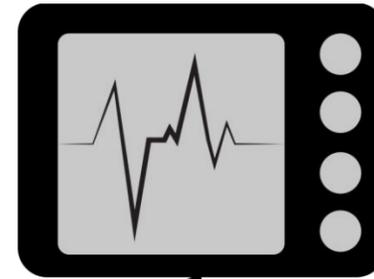
The bedside terminal NBT is equipped with RS485 terminals for expansion, enabling the connection of various sensors. These sensors can utilize the call system's wiring to transmit signals to the nurse station or raise alarms, allowing the station to monitor various conditions within patient rooms

203 SMOKE



In-built RS485 terminal

Physical monitor



Wearable



Environment sensor



Motion sensor

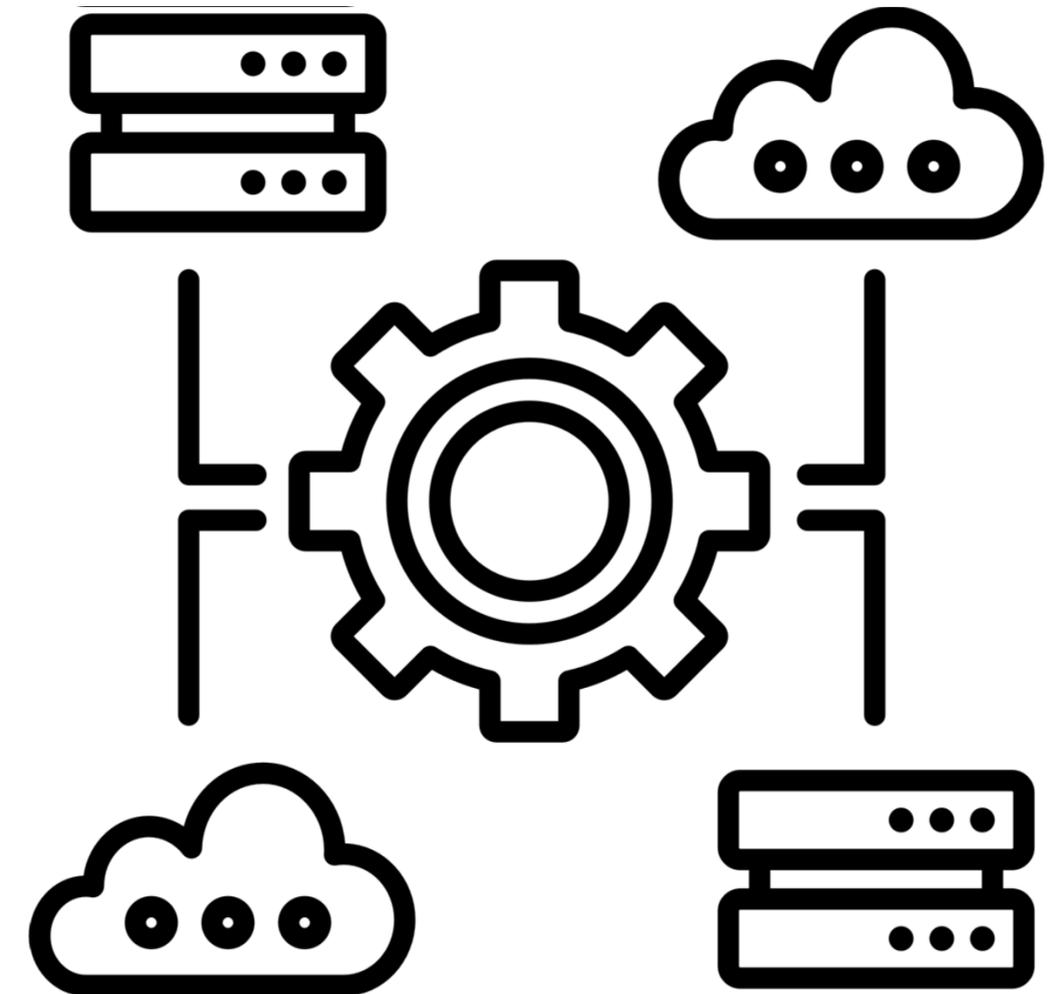
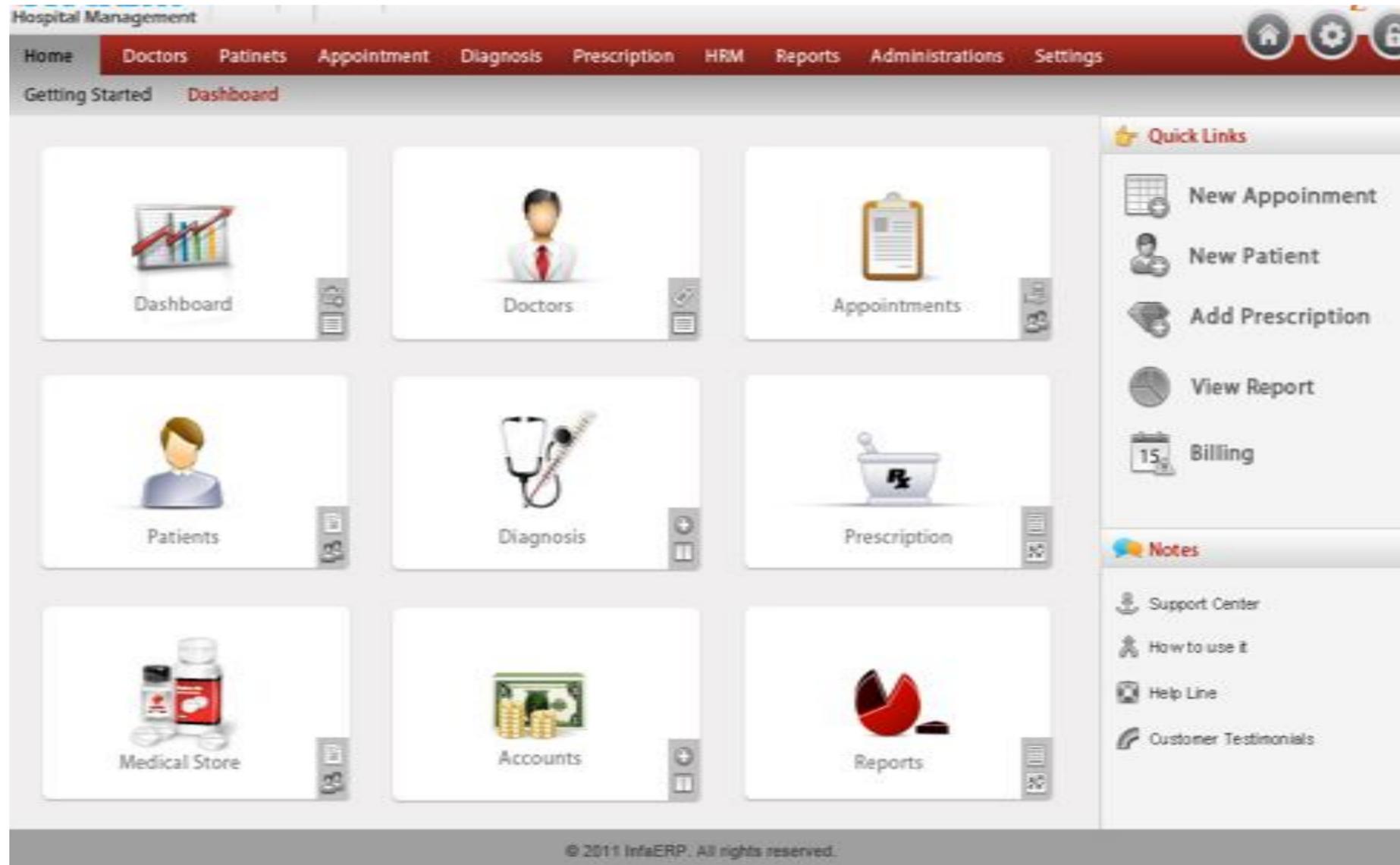


Smoke sensor



INTEGRATION

The NCS1 host can integrate with the hospital's information systems via the IP protocol. Customized software can be tailored to accommodate the unique needs and systems of each hospital



KEY FEATURES

- Integration of IP and digital communication technologies for stability, low maintenance costs, and high scalability.
- Each nurse call system can connect to 100 rooms or 1000 beds.
- Compatibility with the hospital's existing network infrastructure or independent wiring options.
- Integration capabilities with existing hospital IP network communication systems (e.g., WIFI network phones).
- Built-in event logging and call recording functionalities.
- Provision of external expansion ports for connecting various sensors.
- Flexibility for customization to meet middleware software requirements and integrate with the hospital's existing information systems.



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