



 **LUX** ELECTRONIC

Intelligent Healthcare Communication Systems

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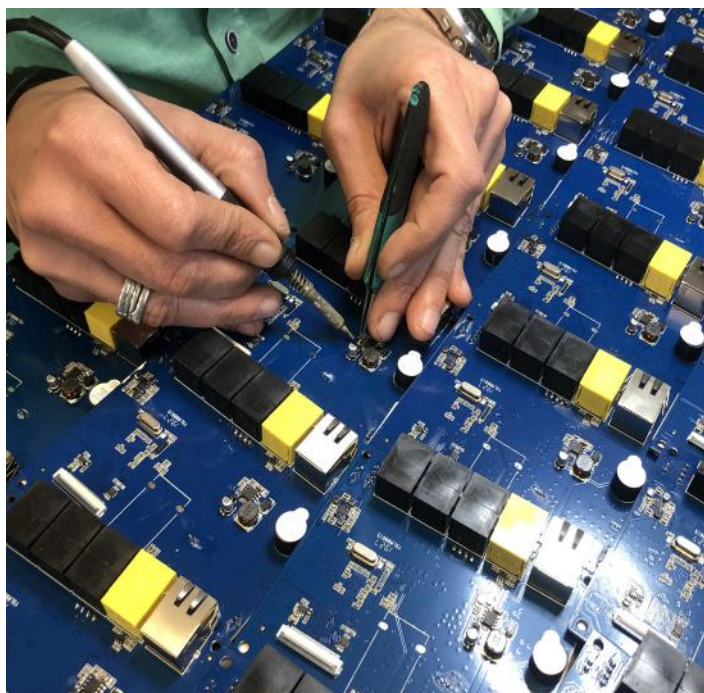
Intelligent Healthcare Communication Systems



Lux Electronic was founded with the aim of bringing the wider world of institutional electronics and software into modernity at reasonable prices, from communications and information management to energy monitoring. We believe that the quicker the world's institutions can adopt the latest advances in technology, the better and more equal human quality of life can be across the globe.

In Intelligent Healthcare Communication Systems, we are the leader of the local market with more than 750 systems installed worldwide and over 38 million patients served.

"Our systems adapt to
changing ward environments.
We evolve with you."



OUR VISION

Our aim is to move our leadership to the world market and improve our technology with flexibility and innovation, and exceed the expectations of digital hospital management system standards.

OUR MISSION

ZKR Intelligent Healthcare Communication technology is among the best in the world. It features many options such as voice over IP communication (VoIP), data logging with Mifare Cards, monitoring data from HIS (Hospital Information System) and integrating HIS with our MCW mobile application. We focus on the software integrations that give the most streamlined solutions for hospitals and patients. Our success is based on thinking about your future needs.

Is your Healthcare Communication System Intelligent ?



Does your system allow you to...

- Know when your patients need help?
- Track which nurses respond to patient calls?
- Track how long it takes nurses to respond to a patient call?
- Track how long nurses spend in patient rooms?
- Use multiple call types and escalations so the critical cases always take priority?
- Talk to your patients directly so you are informed of the details of the incident immediately?
- Notify your technical staff of any faults and malfunctions in the system automatically?
- Only notify selected teams for selected types of calls, reducing alarm fatigue?
- Continue service and full functionality through local backup systems even when server connection fails?
- Automatically forward calls from one Nurse Station to another for Night Mode ?
- Reconfigure which rooms are connected to which nurse stations without touching a single cable?
- Prevent unauthorized people from initiating false alarms for important call types such as Code Blue (Cardiac Arrest)?
- Update your system software remotely?
- Integrate with other hospital systems allowing a unified source of information?
- Allow your patients full control of their environment such as lighting, curtains, air conditioning, music, TV?

Pure IP

ZKR Comfort and Versatile series are pure IP systems with fully structured cabling, allowing for detailed and easy device fault monitoring with different notifications for different types of failures, such as power loss, disconnection, major malfunction, etc. The system can also update the software of all of its component units through the network automatically.

Middleware Integration

Integration Software is the process of combining data from many different sources, typically for analysis, business intelligence, reporting, or loading into an application. Our systems take one step further and work as Middleware – as a bridge between different software.

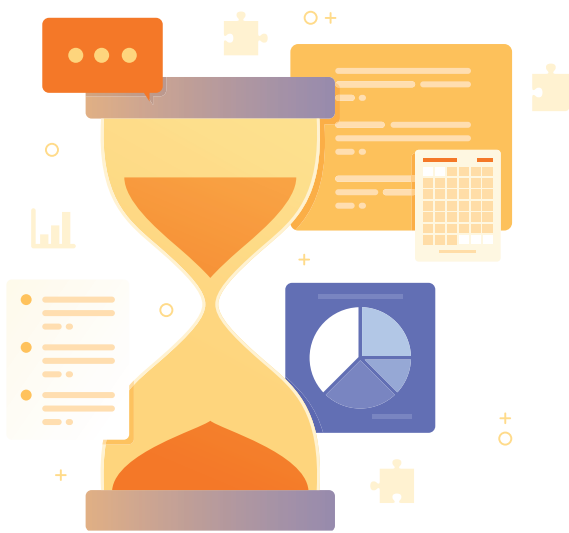


- **Patient Monitoring Integration**
- **HIS (Hospital Information System)**
- **Fire Alarm Integration**
- **PBX Integration**
- **Building Management System**
- **Infant Tracking**
- **Public Voice Address Integration**

Web-Based Server Interface

We offer fully backed up server options with hot swap capabilities based on hospital demand to ensure continued service. Our systems work from a single server with a userfriendly web-based Application and Reporting Interface allowing you to monitor what types of calls were made when and which personnel responded to them, as well as the use of the MCW One mobile application, detailing when personnel received and read messages and calls, and when they declined calls, etc.





Flexible Software - Workflows and Efficiency

Our systems are tailored to your requirements. Our flexible software allows us to accommodate user-designed workflows through intelligent call routing. Calls and alarms need only go to the relevant assigned staff, reducing general alarm fatigue and promoting a healing environment—helping you supply efficient quality patient-care and manage your most valuable resource: time.



Fully VoIP Structure

Voice calls can be made in the Versatile Plus and Comfort systems, from room to room, nurse station to room, nurse station to nurse station, patient handset to nurse station, and from the MCW One mobile application to any of the units connected to the system.

At the institution's request all voice calls made on the system can be stored on the central ZKR application server, and listened to at any time.



Modern Room Control

Our Room Control Units are touchscreen, with easy to navigate menus and clear indicators regarding the connection status and active call statuses. These menus are configurable to the needs of the hospital. Highly configurable room control units allow new custom types of emergency calls, consultation calls to any hospital branch specified by you, different quantities of connected pull-cord or wall button type call points, etc.

Scalable

The system is scalable and modular, and unlimited in scope. Our Intelligent Healthcare Communication Systems easily grow with your hospital and respond to your needs without needing to completely reinstall already installed portions of the system.

Easy Maintenance

ZKR system comprises of easy maintenance modules. Our systems can scale from 10 beds to 10,000 beds with no problems and expand with your institution in the future.

All equipment within the system detect any failures automatically within 30 seconds and generate Failure Notifications to the assigned technical teams of the institution. In this way accurate address error information is sent to the right people quickly and reliably

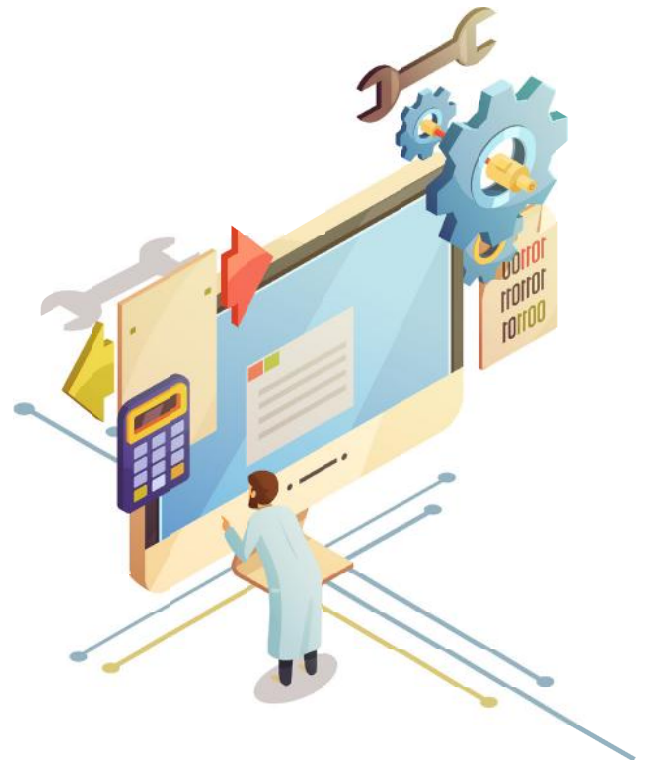
Stability and Backup

The ZKR system architecture was designed to be 99.95% operational.

Thanks to fully structured cabling, one malfunctioning unit or cable does not affect other units.

In case of a Nurse Panel malfunction, calls will automatically be forwarded to another Nurse Panel defined within the system, and the system will continue normal functionality through the other Nurse Panel uninterrupted.

All system logs are kept centrally in the local ZKR application server, and automatically backed up. These logs can be monitored through a web based interface by any authorized personnel from any computer on the network. The logs can be exported to a spreadsheet or printed.



Product Family



IP SYSTEMS



WIRELESS SYSTEMS



UNIVERSAL

PATIENT DEVICES

The patient handset allows the patient's condition to be reported quickly to the hospital staff in an emergency situation. These products vary according to the model of solution. With different handset models, patients can make internal and external phone calls, call for their needs, and control the TV and lights.



Comfort VoIP Handset

ZKRUNCIPCNFHND001



Pro Handset

ZKRUNCIPHS10200



Basic Handset

ZKRUNCIPHS10100
ZKRUNCWRHS10100



ROOM DEVICES

Room Control Units



Comfort Room Control Unit 10"

ZKRUNCIPCNFRMC002



Versatile Plus Room Control Unit 5"

ZKRUNCIPRMCN130
ZKRUNCIPRMCN140



Air Plus Room Control Unit

ZKRUNCWRRMCN100



Call Unit Devices



Bedside Call Unit

ZKRUNCIPWL10100
ZKRUNCWRWL10100



Pull-cord Call Unit

ZKRUNCIPWC10100
ZKRUNCWRWC10100



Code Blue Unit

ZKRUNCIPCDBL101



Custodial Cell Call Unit

ZKRUNCIPWL10200



GROWING DEMANDS OF MODERN HOSPITALS

The ZKR product family includes a wide range of products that have easy integration with each other. Inter-compatible products enable us to offer more flexible solutions to meet our customers' requirements.

STAFF DEVICES

Staff devices are used to receive all call types. All logs can be reported on staff devices in detail.

VoIP Nurse Control Panel 7" ZKRUNCIPNCP7



Central Monitoring Software ZKRUNCIPNTMT18



MCW ZKRUNCWTER1100



CORRIDOR DEVICES

Corridor devices are used to help the operation of other devices, and they are easy to use.

Air Basic Dot Matrix Panel ZKRUNCWRNCSPC10



Over Door Light ZKRUNCORTKLP10 ZKRUNCORTKLP20 ZKRUNCORWRLMP10



Text Panel ZKRUNCIPTXPNL18



Pager ZKRUNCIPPOSPG10



Signal Repeater ZKRHNWRREP10010



CONTROL DEVICES

Control devices control the operation of all systems and provides logs to hospital.

Senset 3 Input Module ZKRUNCIPZLMOD1



Function Control Module ZKRUNCIPRMLK100



ZKR Application Servers

Application Server M1000 ZKRUNCIPSR10200

Application Server M500 ZKRUNCIPSRM0500

Application Server M150 ZKRUNCIPSRM0150

Application Server M50 ZKRUNCIPSR10400

Application Server M30 ZKRUNCIPSR10300



Room Devices

Comfort Room Control Unit 10"



The Comfort Room Control Unit ensures communication between the Nurse Control Panel and the call units in patient rooms. This unit is suitable for surface montage. The unit supports up to 6 Call Units by default, and features a 10" touchscreen and a built-in Mifare card reader, which nurses use to verify their identity when responding to calls. All cards read by the unit are checked for authorization.

The Room Control Unit can be used to initiate and terminate emergency code calls (Code Blue-Cardiac Arrest etc.), assist calls, and consultation calls. It allows routine controls the staff to use their cards to log into the room without an active call. The unit logs all activities to the server with timestamps and ID information. If the server connection is interrupted, the Room Control Unit will independently log up to 99 calls until server connection is reestablished. On the Comfort VoIP Room Control Unit, you can make voice calls with other SIP devices on the system.



- PoE (Power Over Ethernet)
- VoIP Full Duplex SIP
- Conference Call
- Internal and External Call
(with tracking system for billing)
- Built-in Mifare card Reader
- Timer/Stopwatch
- Menu option for personalized task lists based on personnel ID
- Can display hospital advertisements or other videos
- Can display training videos for specific healthcare procedures

Versatile Plus

Room Control Unit 5"



This device ensures communication between Nurse Control Panel and Call Units. It is suitable for both surface and flush montage. It features a 5" touchscreen and a built-in Mifare card reader, which nurses use to verify their identity when responding to calls. All cards read by the unit are checked for authorization.

This unit can define up to 8 call units. Its durable structure and modern software ensure the best operating time and performance.



Air Plus Room Control Unit



This device ensures communication between the Air Plus Nurse Control Panel and Call Units. Detailed information of each interaction made with the built-in Mifare Card Reader on the Room Control Unit will be logged. 4 buttons, located on the control unit are configured by default to serve as an assist button, a code blue button, a room clean button, and a room presence/ routine check button. There are also 2 special function buttons that can be configured according to the needs of the institution.

- Built-in Mifare Card Reader
 - Ambiance LEDs reflect on wall based on call status
 - 2 configurable function buttons
 - 4 pre-configured function buttons



Care processes are simplified with RFID



Our systems use MIFARE smart cards to verify the permissions of hospital personnel who wish to initiate or terminate various calls. This allows custom permissions to be set for different types of card users; nurse, doctor, Code Blue Team, cleaning staff, etc. It also allows our call server to log ID data of the nurses that respond to calls. Graphical reports detailing which nurses responded to which calls, how long they were in each room, etc. can be monitored on the user friendly web-based server interface.



Bedside Call Unit



The Bedside Call Unit is used in patient rooms. There are backlit call and cancel buttons on the unit. In an emergency, a patient uses the call button to make an emergency call which appears as an alert on the Nurse Control Panel. Typical locations for this unit are on the walls of patient rooms and living areas as needed.



Pull-cord Call Unit



The Pull-cord Call Unit is used in patient bathrooms or similar areas. There is a backlit cancel button and an emergency call pull-cord on the unit. In an emergency, a patient pulls the cord making an emergency call. This appears as a WC Emergency Call on the Nurse Control Panel. The system gives priority to WC Emergency calls and they appear before other calls. This device is Water-Resistant.



Code Blue Unit



The Code Blue Unit is mounted on the wall as needed in the hospital. There are backlit call and code blue buttons on the unit. The call button may be pressed to initiate a nurse call which appears as an alert on the Nurse Control Panel. The code blue button may be pressed to start a Code Blue call. The same button can be configured as an assist call button.



Custodial Cell Call Unit



The Custodial Cell Call Unit is flush mounted on the walls of prisoner cells, psychiatric units or similar areas. There are nurse call and call termination buttons on it. It has an aesthetic and durable structure.

- Flush montage to prevent disassembly
- RJ45 socket allows easy installation
- Made of stainless steel raw material
- Vandal-proof, IK-10 certified in structure for use in psychiatric clinics and prisons

Patient Devices

VoIP Comfort Handset



With voice communication, patients can speak directly to the nurses assigned to them. This system allows hospital staff to save time on service, prioritize critical cases, and comfort patients through voice communication. Thanks to the ZKR Comfort System, all conversations between hospital personnel and patients can be recorded, giving opportunities for quality control. Evaluation of nurse performance can be displayed as a graph on the server interface.

The Comfort VoIP Handset is easy to use. Patients can press the button labelled "Nurse Call" when they wish to send a regular nurse call signal, or they can press the large call button when they want to speak with the nurse assigned to them. The product is user-friendly, ergonomic, and hygienic. Using intelligent controls, patients can make internal and external phone calls with automatic billing. ZKR Comfort Nurse Call Systems can integrate as PBX analog, digital, and VoIP with any SIP-based brands.



- PoE (Power Over Ethernet)
- PBX
- Full duplex
- SIP protocol

- Conference call
- Function control within the room through Building Management System integration (such as lighting or window blinds)
- TV channel and volume control
- Internal and external call (with tracking system for billing)



Pro Handset



The Pro Handset is designed to inform the staff of the patient's condition immediately.

- Easy-to-clean, responsive membrane keypad
- Works though connection to Bedside Call Unit
- TV channel and volume control
- EL lights allow visibility in the dark
- Function buttons help to control room lighting, reading lamp, window blinds, etc.

Basic Handset



The Basic Patient Handset allows the patient's condition to be reported quickly to the hospital staff in an emergency situation.

- Easy to use
- Works though connection to bedside call unit
- LED back lights allow easy use in the dark
- LEDs stay lit when there is an active call until a nurse responds



Staff Devices

VoIP Nurse Control Panels



The statuses of all working Room Control Units connected to the panel can be monitored actively. All errors and notifications shall be displayed on the information panel. Emergency codes, WC calls, nurse calls, and nurse presences can be monitored.

All activities on the system are logged. All logs can be reported in detail. There are a configurable number of room monitoring icons on the interface. Call statuses are tracked in real time via these icons.

MCW

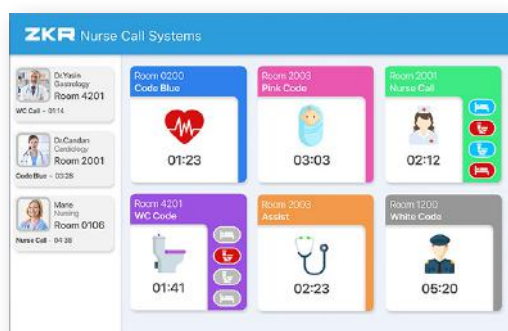


Research shows that healthcare professionals spend nearly 35% of their time trying to reach information. The MCW One Handset ensures you get the right information at the right time.

This mobile device allows you to receive all or filtered calls from the Nurse Call System, accept or decline the calls or forward them to other team members, talk directly to patients on their Comfort system VoIP handsets, talk through Room Control Units, assign tasks for team members and monitor the completion of these tasks, receive integrated hospital device alarms, check Laboratory results from Hospital Information System, and remember profiles for different staff members through NFC card authorization.

The application can be licensed for use on Android based smartphones, but some of the features such as card reading might not be possible depending on the smartphone's features.

Central Monitoring Software



The ZKR Central Monitoring Software is a web-based monitor that observes all activities such as nurse calls, code blue (and any custom emergency codes), assist calls, and nurse presences throughout the hospital. It can show picture IDs of personnel that are present in patient rooms.

Different parameters (call type, department, and floor info) can be filtered based on needs. In this way, the focus of health personnel can be directed and reaction and intervention times can be minimized.

Corridor Devices

Air Basic Dot Matrix Panel



- Displays 4 calls in order of priority (others wait in queue)
- Adjustable 5 digits can show floor, room, bed number, etc.
- Color LEDs indicate call type
- Supports up to 64 beds
- Audible alerts according to call type



Over Door Light



The Over Door Light is located above the patient room door in the corridor. Its half-sphere shape makes it easily noticeable from any angle of view. The Over Door Light can indicate the call status of the room with up to 7 different colors (red, green blue, cyan, yellow, magenta, and white).

It has very low energy consumption with environment-friendly LEDs. It is flush mounted by standard, but a surface montage box can be provided if necessary.



Text Panel



The Text Panel is a scrolling 15-character dot matrix screen. It works as TCP-IP on the network, displays the calls as text, and gives audio alerts. Based on preference it can be set to display only specific types of calls or all calls. It works with 110 - 240 V.



ZKR Pager



- 8-line LCD screen
- Message handling in POCSAG standards
- Uses a rechargeable battery
- 99 message memory (oldest record overwritten when full)



Control Devices

Function Control Module



Provides control of On/Off for two different functions within the room (such as reading lamp or window blinds) from the patient handset. One Function Control Module must be installed per one Patient Handset, connected between the Room Control Unit and the Bedside Call Unit via its two RJ45 ports (in/out), or connected to a Call Unit port on the Room Control Unit by itself.



Senset 3 Input Module



Provides interface with various external equipment such as ECG Patient Monitors or Saline Solution bags to track the quantity of remaining Saline Solution. This module allows the Nurse Call System to generate notifications and alarms automatically through data received from the existing medical equipment and devices. This way healthcare personnel are notified immediately even when the patient is unable to make a call manually.



ZKR Application Server



The server controls the operation of the Comfort, Versatile Plus, Versatile, and Air Plus (optional) systems used in hospitals. The server provides log reporting through a web interface and enables integration with other systems used throughout the building. Our servers have a Linux-based robust and reliable infrastructure.

- Linux Operating System
- Troubleshooting and error notification of all system devices
- Voice Record Module (for Comfort and Versatile Plus systems)
- Integration with WiFi mobile phones
- Integration with DECT telephones
- Integration with pagers
- Integration with PBX and ability to start emergency codes (such as 1111, 2222, 3333)
- IP, PRI, BRI, Analog Connection
- Integration with Fire Alarm Systems (Modbus, Bacnet, Special TCP connection types)



- Integration with CCTV Systems (Serial Port, Special TCP connection types)
- Integration with RFID Systems (Web service, Special TCP connection types)
- Integration with Hospital Information System
- Integration with Lighting Automation

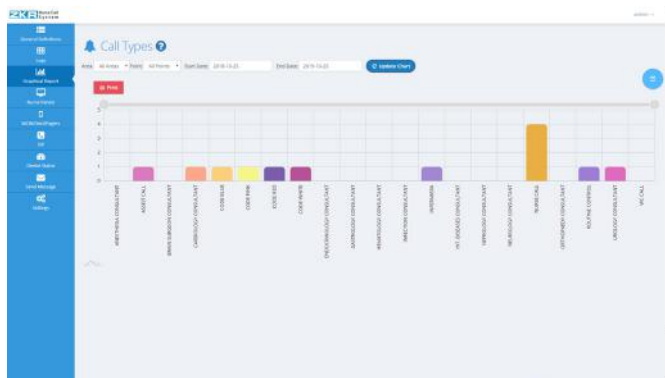
Logs and Reporting

Our web-based server interface allows your hospital to access the server settings and event logs from anywhere on the hospital network. Simply open a webbrowser on any computer on the same network as the server, and type in the server's IP address. After logging in, technical personnel can define rooms and teams on the server without interrupting the functionality of the nurse call system.

Here hospital administrators can also view filterable call logs, with all relevant data, including call type, timestamps, and elapsed time for both nurse response and nurse presence. Thanks to our RFID card-based system, administrators can see which nurses respond to the most calls, and how they are spending their time. All of this data can be viewed as easy-to-read graphical reports, so that the hospital can use real data to decide how better to manage their resources.



If the system ever needs an update in software, or a change in configuration with help from headquarters, we can connect to a hospital technician through the internet and access the server directly to provide the hospital with support. There is no travel time or travel expenses, we are by your side, wherever you need us.



Number of Calls per Call Type

Call ID	Call Type	Room	Start Time	End Time
127576001	Emergency Call	ROOM 1001	2019-10-11 10:00:01	2019-10-11 10:00:01
127576002	Emergency Call	ROOM 1001	2019-10-11 10:00:02	2019-10-11 10:00:02
127576003	Emergency Call	ROOM 1001	2019-10-11 10:00:03	2019-10-11 10:00:03
127576004	Emergency Call	ROOM 1001	2019-10-11 10:00:04	2019-10-11 10:00:04
127576005	Emergency Call	ROOM 1001	2019-10-11 10:00:05	2019-10-11 10:00:05
127576006	Emergency Call	ROOM 1001	2019-10-11 10:00:06	2019-10-11 10:00:06
127576007	Emergency Call	ROOM 1001	2019-10-11 10:00:07	2019-10-11 10:00:07
127576008	Emergency Call	ROOM 1001	2019-10-11 10:00:08	2019-10-11 10:00:08
127576009	Emergency Call	ROOM 1001	2019-10-11 10:00:09	2019-10-11 10:00:09
127576010	Emergency Call	ROOM 1001	2019-10-11 10:00:10	2019-10-11 10:00:10

MCW Usage Logs

Nurse	Room	Call Type	Start Time	End Time
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:01	2019-10-11 10:00:01
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:02	2019-10-11 10:00:02
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:03	2019-10-11 10:00:03
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:04	2019-10-11 10:00:04
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:05	2019-10-11 10:00:05
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:06	2019-10-11 10:00:06
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:07	2019-10-11 10:00:07
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:08	2019-10-11 10:00:08
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:09	2019-10-11 10:00:09
Nurse 1	ROOM 1001	Emergency Call	2019-10-11 10:00:10	2019-10-11 10:00:10

Statistics of Answered Calls

Call ID	Call Type	Room	Start Time	End Time	Call Length
127576001	Emergency Call	ROOM 1001	2019-10-11 10:00:01	2019-10-11 10:00:01	00:00:00
127576002	Emergency Call	ROOM 1001	2019-10-11 10:00:02	2019-10-11 10:00:02	00:00:00
127576003	Emergency Call	ROOM 1001	2019-10-11 10:00:03	2019-10-11 10:00:03	00:00:00
127576004	Emergency Call	ROOM 1001	2019-10-11 10:00:04	2019-10-11 10:00:04	00:00:00
127576005	Emergency Call	ROOM 1001	2019-10-11 10:00:05	2019-10-11 10:00:05	00:00:00
127576006	Emergency Call	ROOM 1001	2019-10-11 10:00:06	2019-10-11 10:00:06	00:00:00
127576007	Emergency Call	ROOM 1001	2019-10-11 10:00:07	2019-10-11 10:00:07	00:00:00
127576008	Emergency Call	ROOM 1001	2019-10-11 10:00:08	2019-10-11 10:00:08	00:00:00
127576009	Emergency Call	ROOM 1001	2019-10-11 10:00:09	2019-10-11 10:00:09	00:00:00
127576010	Emergency Call	ROOM 1001	2019-10-11 10:00:10	2019-10-11 10:00:10	00:00:00

Call Event Logs

Integration Software

We are very flexible with software integration with different systems used throughout the hospital. The following are some examples of integrations we support, but anything is possible—we work together with you to find the best solutions to improve the quality of service and save time and future costs for the hospital.

Middleware Functionality

The ZKR system can function as middleware for multiple different systems and allow all integrated systems to intercommunicate to achieve their full potential in functionality. All integrated systems can be monitored from a single operation center screen.



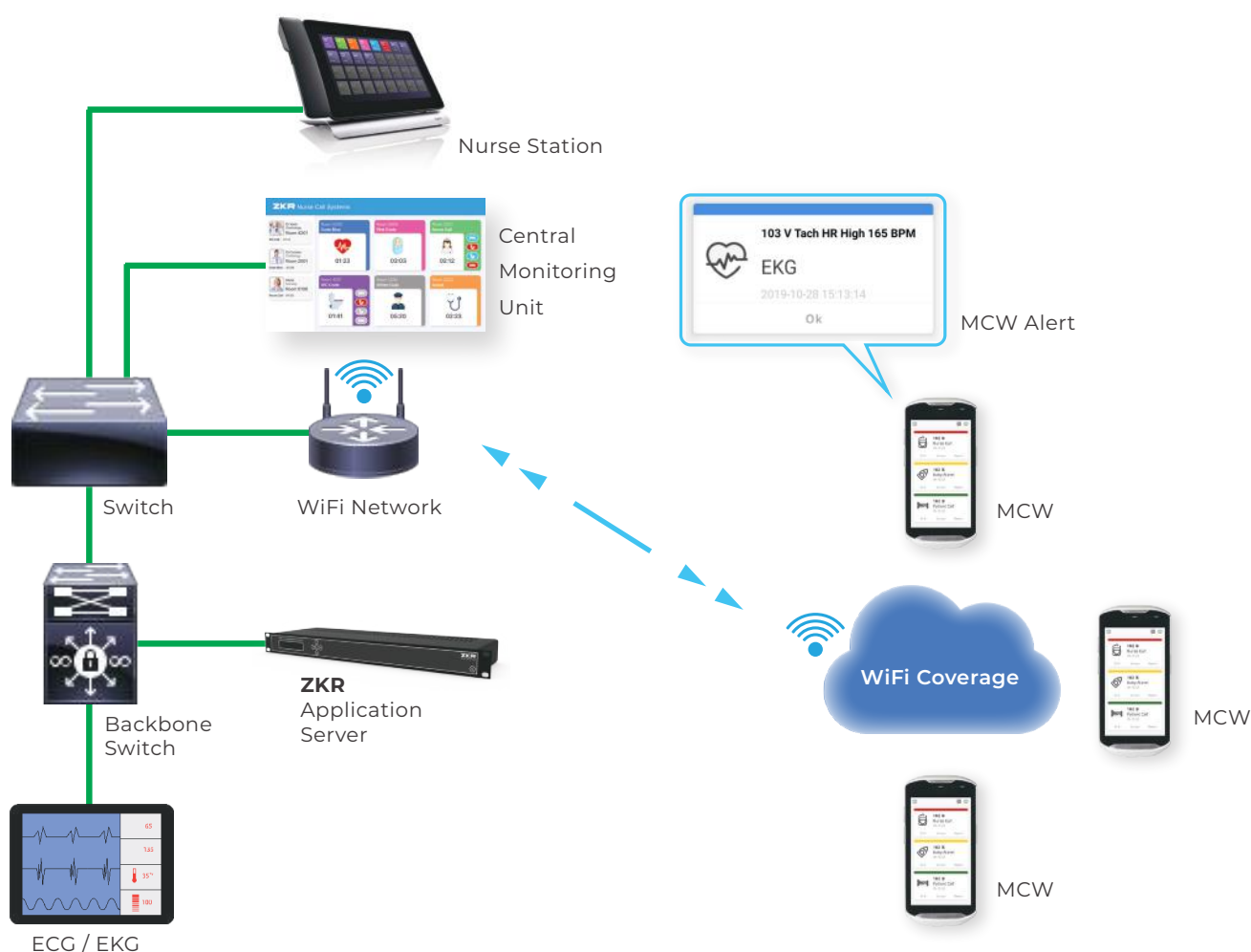
Patient Monitoring Integration



Integration with patient Monitoring Devices such as Saline Solution Controller, allowing nurses to be automatically notified when the saline solution is running low or Pressure Pads which allow configurable automatic alarms to be sent to nurses when a patient leaves his bed, or when he has fallen out of bed. It can also trigger automatic emergency calls when medical devices such as ECG/EKG monitors give alarm.

Supported protocols : TCP/IP (Server, Client), IP HL7, Rest Web Services

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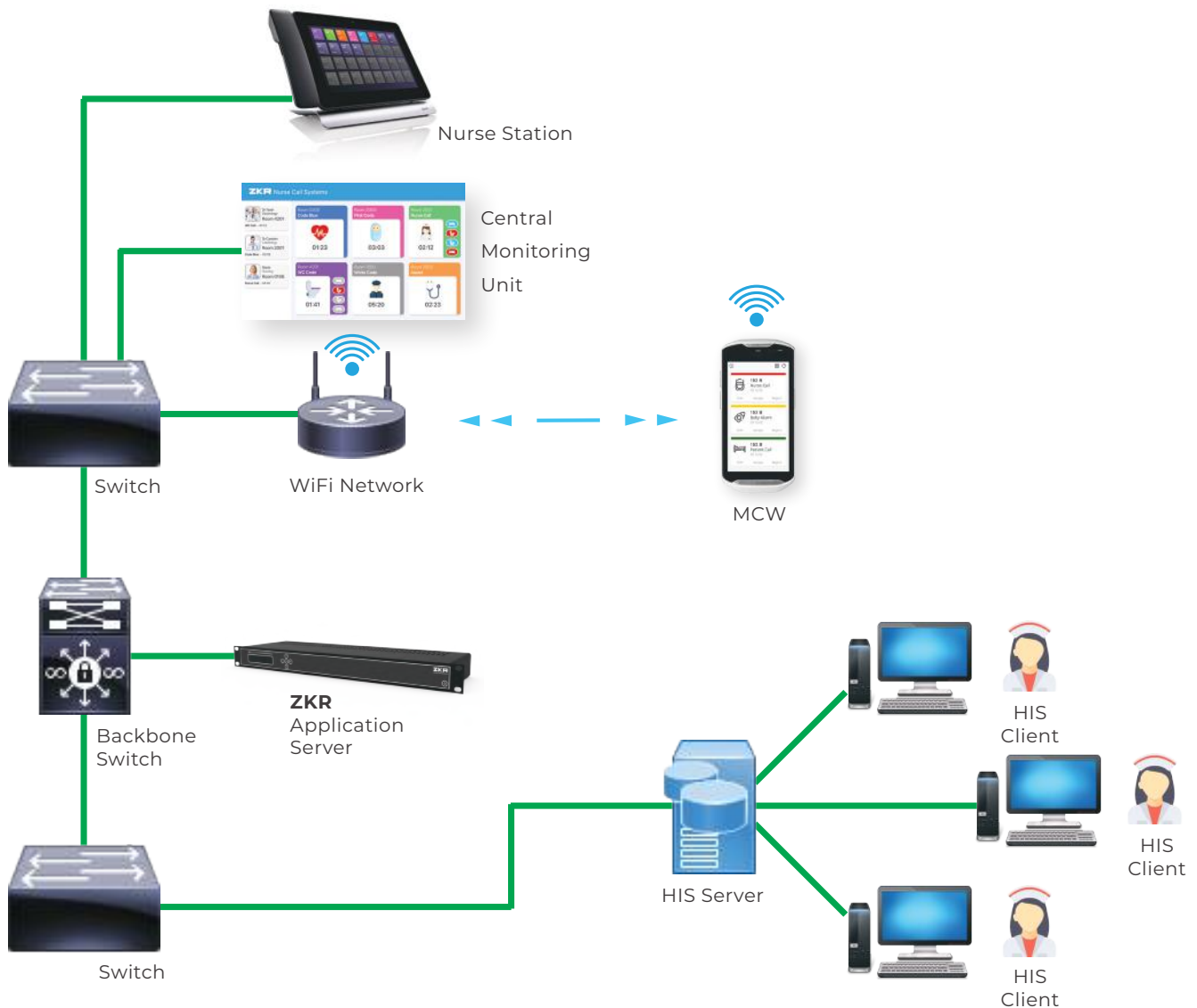
Hospital Information System

Integration with the Hospital Information System allows the demographic data, lab results, and EMG unit alarms relevant to call initiating patients to be displayed on the Room Control Unit screens, Nurse Control Panels, or even MCW One enabled smartphones.

This integration also allows nurses to view information such as allergy notes about the patient simply by pressing his bed icon on the Room Control Unit. Interactive hospital meal menus from HIS can be placed in the Room Control Units allowing the patient or their attendant/companion to easily order meals for the patient directly from the Room Control Unit touchscreen.



Supported protocols : IP HL7, Rest Web Services



Integration with Fire Detection Systems allows the system to show the origin of the alarms on the nurse control panels of relevant zones and send this information to the communication devices (MCW One enabled smart phones, pagers, DECT phones, and WiFi phones) of the personnel that need to know. The system can also automatically trigger conference calls for Fire Safety teams on MCW One allowing clear communication for faster safer response plans.

The diagram illustrates a fire alarm system architecture. At the bottom, a **Fire Alarm System** (control panel) is connected to a **Manual Fire Alarm Trigger** and a series of **Detectors**. A fire icon labeled **FIRE!** is shown below the detectors. The system is connected to a **Backbone Switch**, which links to a **ZKR Application Server**. The server is connected to a **Switch**, which in turn connects to a **WiFi Network** (represented by a router). The WiFi network is connected to a **Central Monitoring Unit** (displaying a dashboard) and a **Nurse Station** (tablet). Red speech bubbles with a flame icon indicate alerts. On the right, a cloud labeled **Automatic Conference Call** is connected to three mobile phones, each labeled **MCW** (Mobile Call Waiting), which are also displaying the same dashboard as the Central Monitoring Unit.

Supported protocols: SIP, Analog FXS

Building Management System Integration

Integration with Building Management Systems such as lighting automation allow the Intelligent Healthcare Communication System to automatically turn on the lights of corridors where a nurse call is triggered, helping nurses reach where they are needed.

When combined with HIS (Hospital Information System) integration, we can automatically cut power to empty rooms in the hospital and turn on the power to these rooms when a patient is booked to them in the HIS, saving power and money for the hospital.

Supported protocols : Rest Web Services, Modbus IP



Light Control



Fault Monitoring



Energy Control

Infant Tracking Integration

Integration with Infant Tracking Systems allow an alarm to be sent to relevant nurse control panels and communication devices of relevant personnel when a baby is taken out of "safe zones". This can be combined with Access Control System integration if available to lock down specified areas of the hospital automatically when the infant alarm is triggered.

Supported protocols: Rest Web Services, Modbus IP

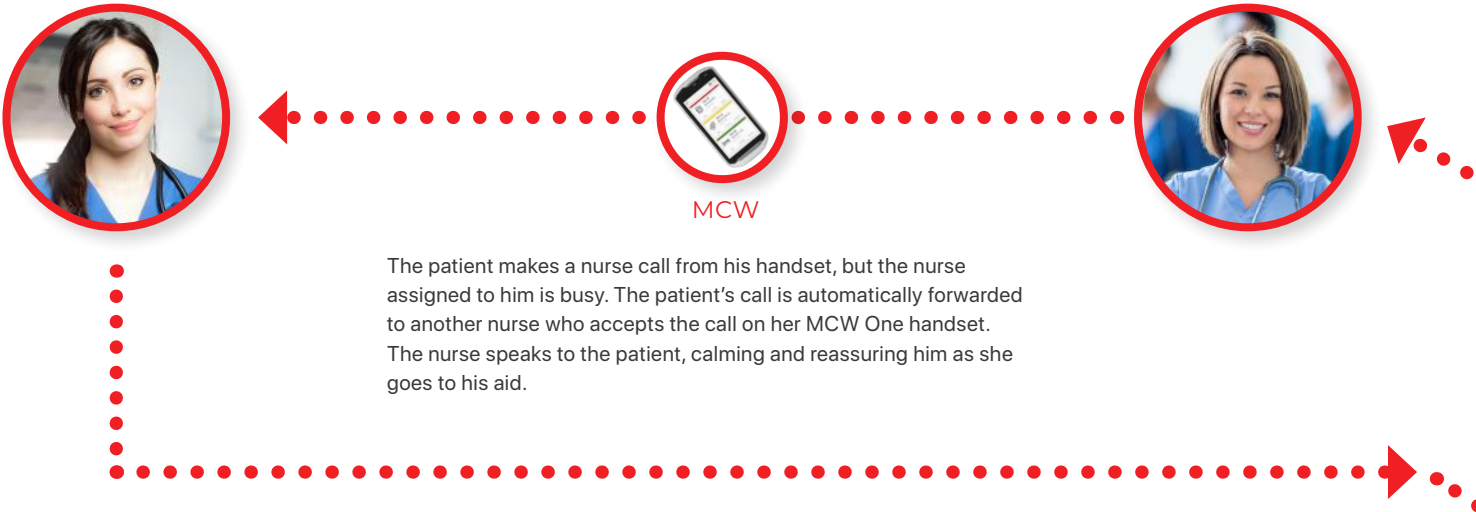


Public Voice Address System Integration

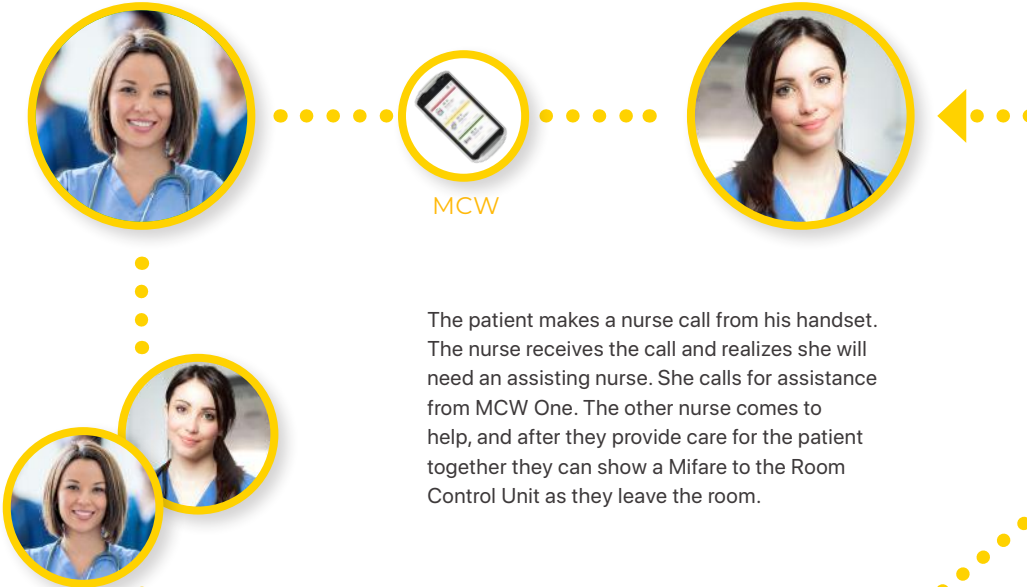
Integration with general and emergency voice alarm systems allows you to make SIP-based announcements to selected zones through VoIP-enabled Nurse Control Panels. With this integration the hospital doesn't need separate expensive microphones for these announcements, because they can be made through the built-in handset of the Nurse Control Panel.

Supported protocols: SIP





The patient makes a nurse call from a Pull-cord Call Unit. The nurse receives the call. After she provides care for the patient, the nurse shows her card to the Room Control Unit as she leaves the room.



The patient makes a nurse call from his handset. The nurse receives the call and realizes she will need an assisting nurse. She calls for assistance from MCW One. The other nurse comes to help, and after they provide care for the patient together they can show a Mifare to the Room Control Unit as they leave the room.



The patient's vitals on the monitor show a critical situation. The senset module picks this up and immediately triggers a call to MCW One. The nurse receives the call and comes to the patient's aid immediately.

- Comfort VoIP Handset
- MCW
- Mifare Card
- Room Control Unit
- Senset Module
- Pull-cord Call Unit

Workflow

The patient makes an external call to his family through his Comfort VoIP handset.



Handset



Handset



Handset

Room Control Unit



The patient is distressed and makes a nurse call from his handset. The nurse arrives to give him care but his condition worsens. The nurse makes a Code Blue call from the Room Control Unit.

Medical Aid



The Code Blue Team arrive to tend to the patient. The Code Blue call will be cancelled upon a Code Blue Team member showing his card to the Room Control Unit.

Mifare Card



Handset



Handset



ECG Monitor

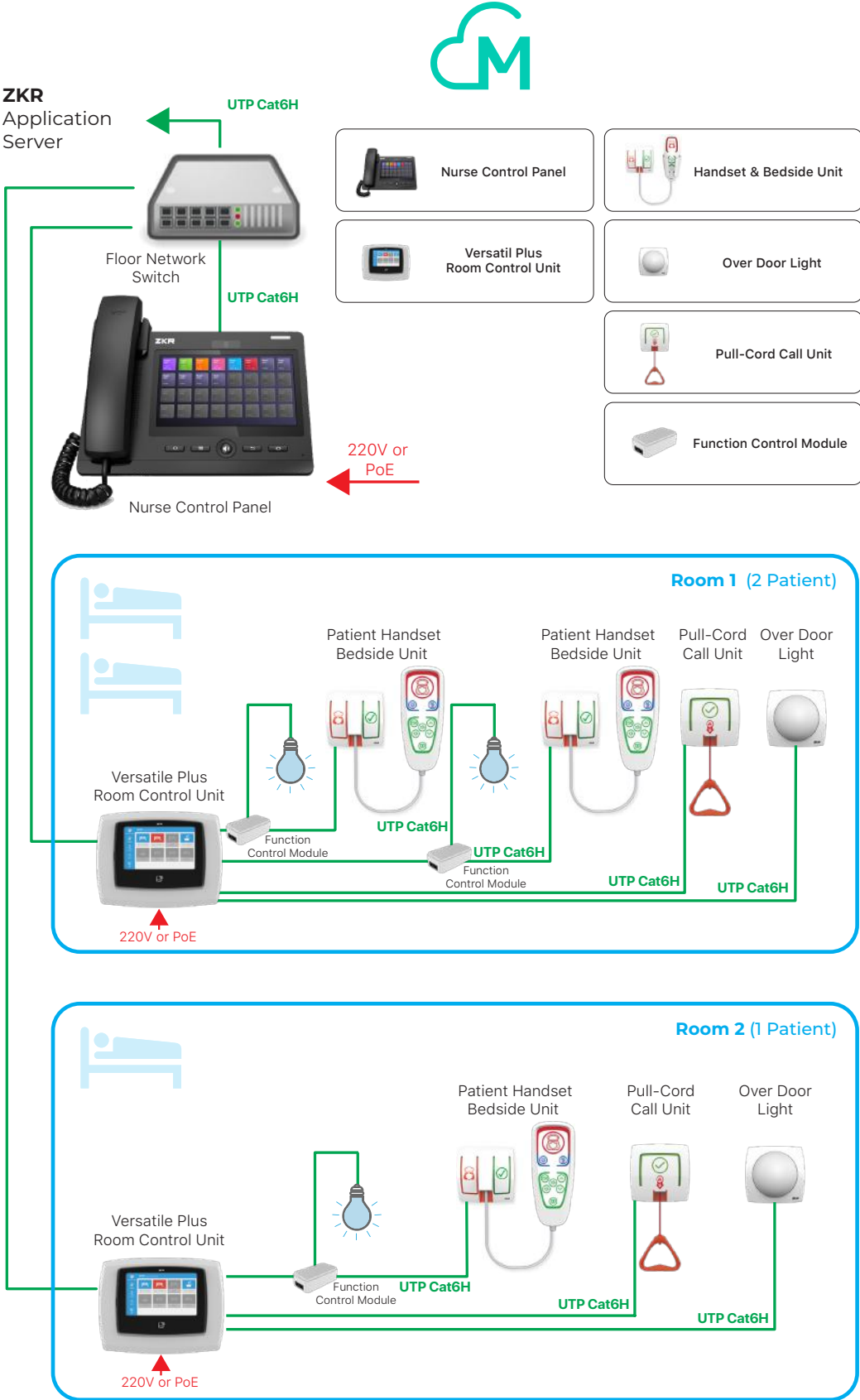
The patient uses his Comfort handset to talk to the nurse and make a request for tea. The nurse uses MCW One to set a task for the person in charge of handling this request. The task completion is marked on MCW One.



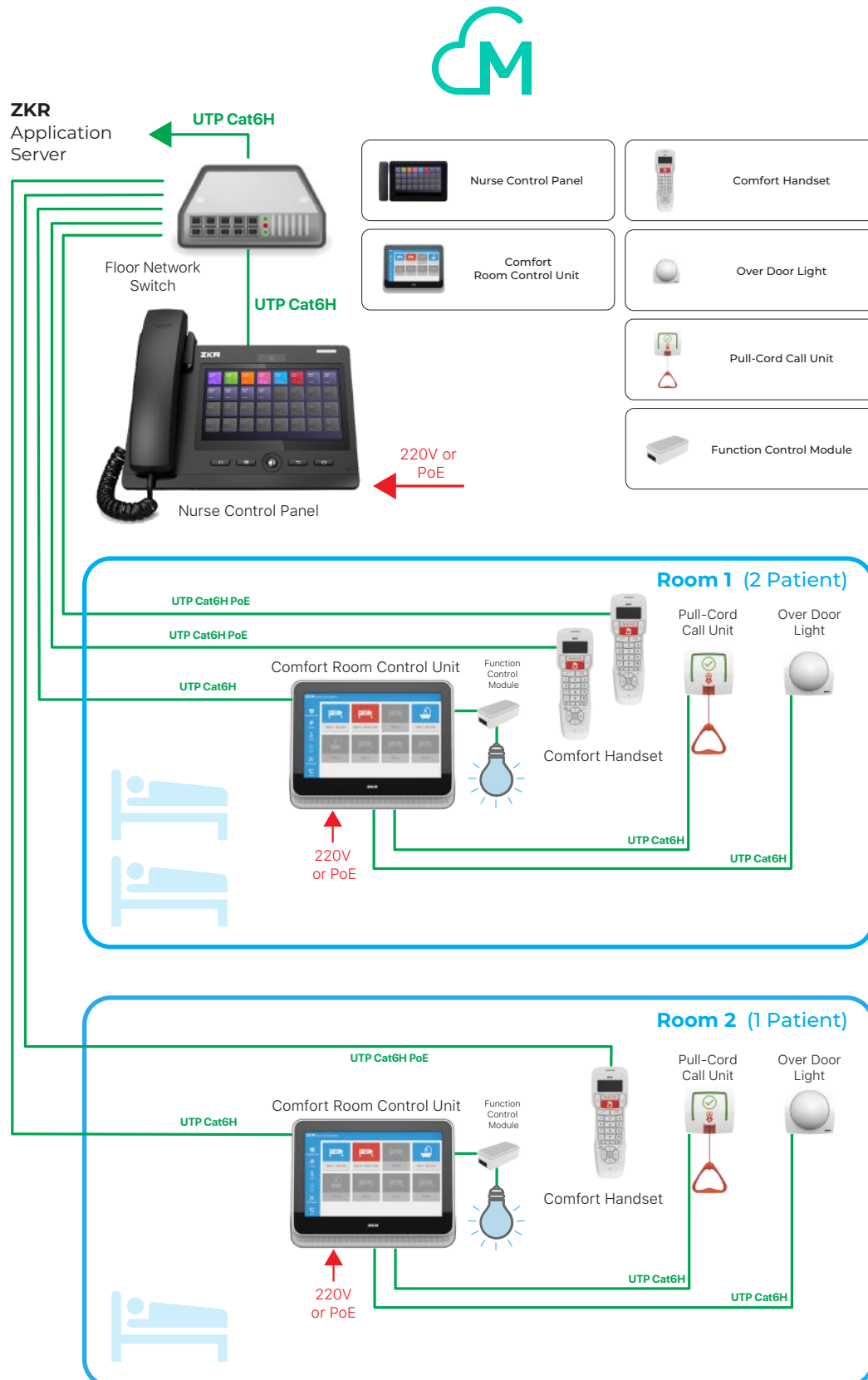
MCW



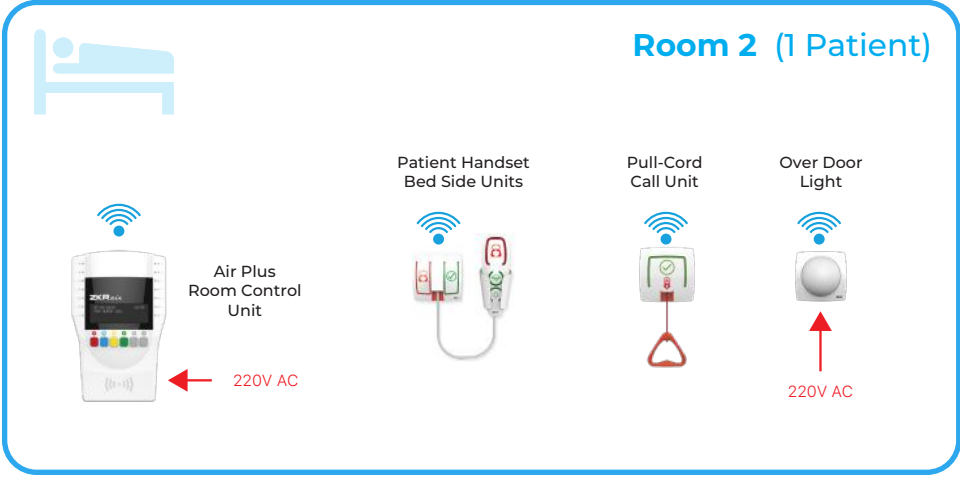
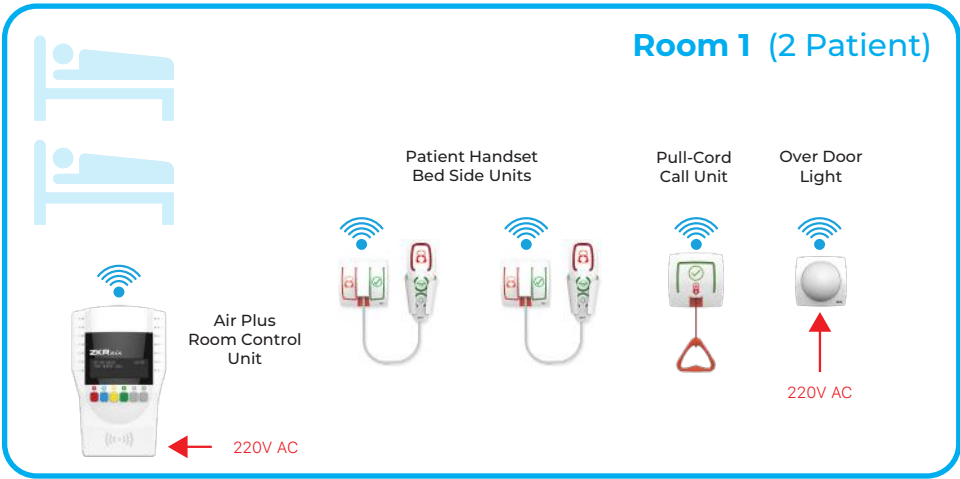
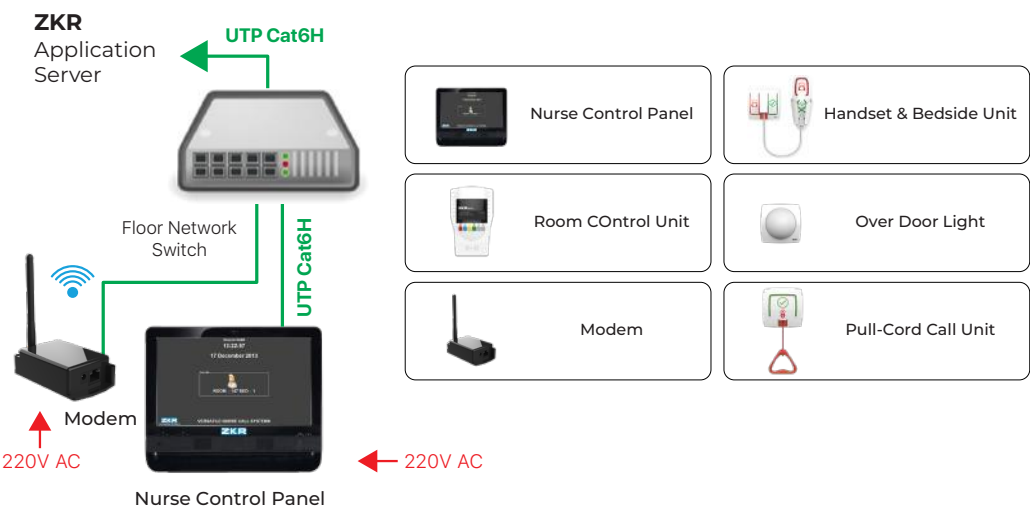
Versatile Plus System Block Diagram



Comfort System Block Diagram

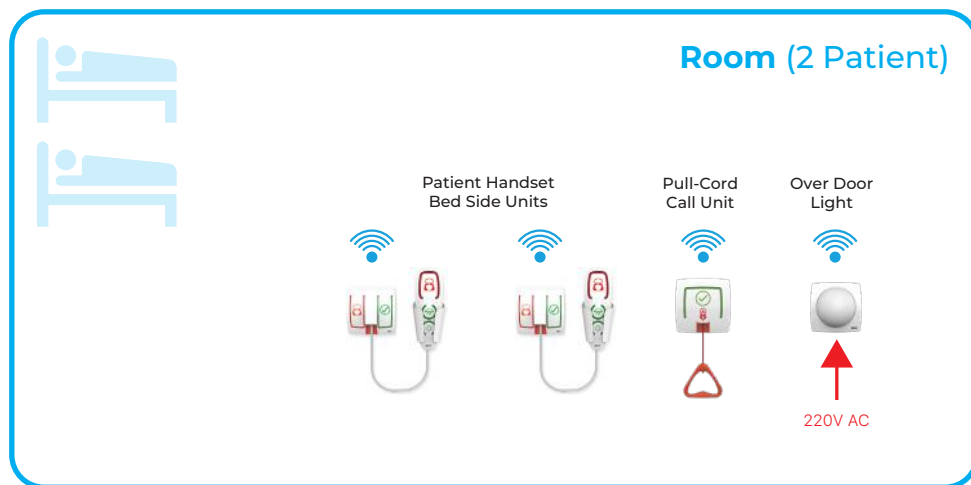
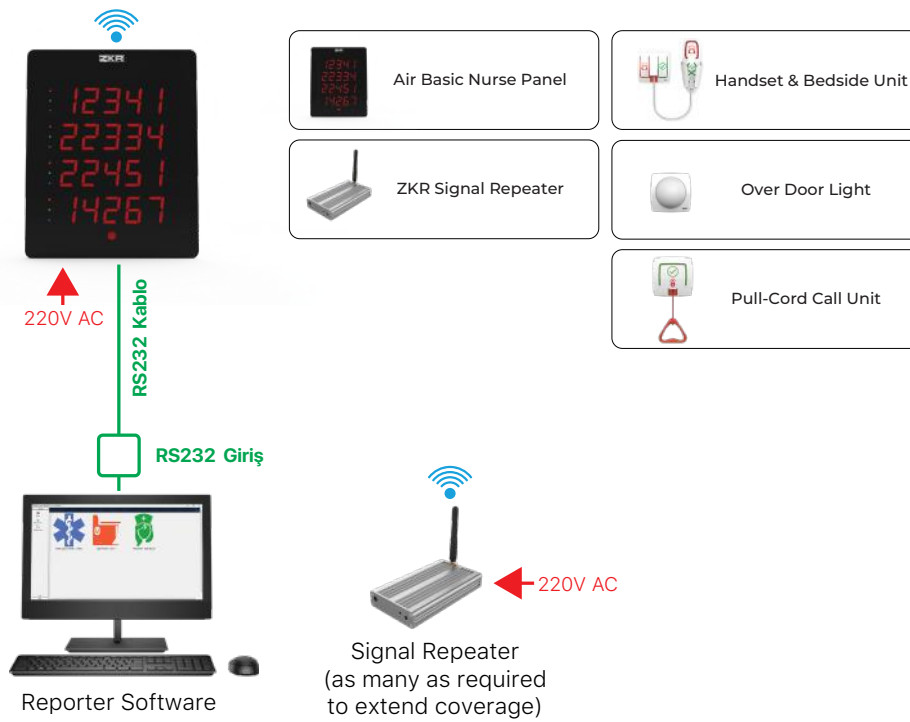


Air Plus System Block Diagram



Air Basic System Block Diagram

Air Basic Nurse Panel
(Dot Matrix Panel)



Over 750 systems installed worldwide.
Over 38 million patient served.



Bilkent Integrated Health Campus
3660 Bed Capacity



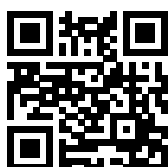
Neuro Spinal Hospital
120 Bed Capacity



Pakistan Kidney And Liver Institute
Research Center
800 Bed Capacity



Almana General Hospitals Aziziyah
200 Bed Capacity



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