SOLUTION DESCRIPTION

Ascom COVID-19 solution for isolated patients

Stand-alone solution for patient signal in temporary locations

The concept

To address crises and ensure that patients are notified to caregivers, Ascom offers a pre-configured patient signal solution for use in temporary locations.

This solution can extend an already existing teleCARE IP solution, or it can be set up as an independent solution with corridor display notification. The equipment can be reused at a later date, or reused as an extension of the existing teleCARE IP solution.

If ordered as a separate solution, all of the equipment is set up at Ascom and comes pre-configured to the customer to minimize the possibility of infection. Bed panel is marked with Bed and a serial number, e.g. Bed 01, Bed 02 and so on.

All we need to know when configuring is the IP addresses of the message server as well as each corridor display to be set up. In Ascom teleCARE IP, all wireless patient panels and pendant transmitters are connected to room controllers with radio modules.

Triggered calls are sent to the message server (NISM) for presentation on corridor display.

The equipment

Rom controllers
Room controllers are IP-based with Power over Ethernet. Placed just below the ceiling, and often in corridors. These have a range of up to 30 meters indoor, and up to 300 meters outdoor.

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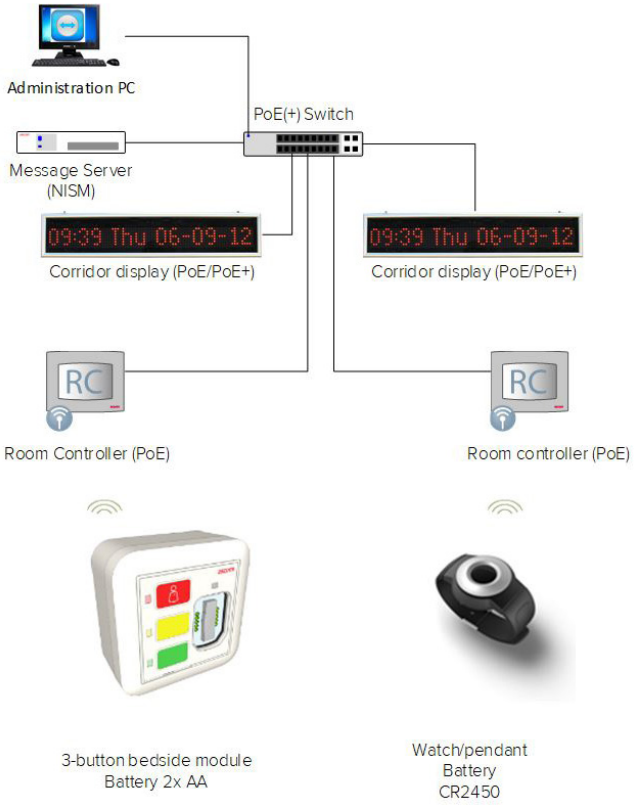
Wireless transmitters
The equipment utilizes a frequency of 869 MHz for EU/UK and 916-921 MHz for US/ANZ. This frequency does not conflict with PC's or other equipment that uses 2.4 GHz or 5 GHz-bands. The equipment is easy to disinfect and tolerates alcohol and normal sanitizer product used in the healthcare.

We offer wireless pendants or watches for patients to carry with them. The battery used is CR2450.

The bedside module is also wireless and uses 2pcs of 1.5 V AA batteries, this will power the module and the patient handset.. With the magnetic contact it is easy to connect and disconnect the patient handset (included). Both the panel, the contact and the patient handset can be disinfected.

Corridor displays
We can deliver both single- and double-sided corridor displays for easy presentation of triggered calls. The corridor displays are IP-based and will be powered by Power over Ethernet (PoE/PoE+)



Infrastructure schematic

The solution utilizes standard network

Technical information

Network
The components uses standard Ethernet for communication. Room controllers uses broadcast to advertise towards message server (NISM), so both NISM abd the room controllers need to be in the same LAN/VLAN.

Message server and corridor displays need static IP.
Room controllers need DHCP, established by customer.
It is an advantage if the solution can use NTP, but it isn't critical.
The solution can operate without access to Internet/other networks.

If the solution need to be expanded later or Ascom technician need to configure the system it is advisable to use a PC towards the message server.

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Power

- Message server is powered by 110-240V AC
- Room controllers need PoE (802.3af)
- Corridor displays need PoE (802.3af/802.3.at)
  - Only double-sided 12-character corridor displays need 802.3at
- Bed modules is powered by 2xAA battery
- Watch/pendand is powered by CR2450 battery

Firewall rules

Source	Destination	Protocol	Port	Function
NISM	Unite CM/ Unite PS	TCP/ UDP	3217	Relay messages to existing Unite CM (if in place)
Administration PC	NISM	TCP	80, 443, 8080, 10153	Administrastion of NISM
NISM	NTP Server	UDP	123	NTP
Unite CM/ Unite PS	NISM	TCP/ UDP	3217	Between Unite modules (if in place)

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