CUSTOMER CASE

COVID-19: Ascom technology supports the Chalon-sur-Saône Hospital in managing vital patient alarms

The William Morey Hospital Center in Chalon sur Saône is focusing on new technologies to improve patient care and safety in the Intensive Care Unit. In the context of a health crisis and high tension, the healthcare establishment and its partner Ascom had to be responsive in order to adapt to the situation and to increase the number of intensive care facilities by a factor of more than two.

It required a digital shift to be made jointly, step-by-step

Since 2005, the French government has launched successive plans for transforming hospitals via information and communication technologies. Most recently, the My Health Plan 2022 has promoted connected bed and data management to improve the efficiency of healthcare facilities.

Since its opening in 2011, the William Morey Hospital Centre in Chalon sur Saône has been part of this transformation with the evolution of its architecture. “Our policy is to say that technology is at the service of the teams and not the other way around,” said Stéphane Kirche, Head of Innovation of the hospital group. “It’s a collective job, which, to be effective, requires us all to pull in the same direction, from healthcare teams to technology providers to IT. We are making these changes step by step, but we are convinced that the use of new technologies can improve patient management and working conditions for our caregivers, especially in times of crisis like the one we are currently experiencing.” The long digital shift that has been underway for nearly 10 years has enabled intensive care rooms to be reconfigured with the ambition of improving the vital alarm reporting system.

Standardize biomedical equipment to facilitate vital alarm management

The problem of alarms in intensive care is particularly complex: since an ARS [Regional Healthcare Agency] injunction in 2012, the doors of these rooms must be closed and sealed to avoid internal/external contamination. Managing these alarms is a matter of life and death: poor sound identification of the equipment that goes into alarm or poor understanding of color codes that indicate priority levels can lead to the death of a patient.

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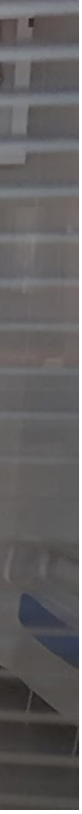

"We had a problem of standardizing medical equipment first, then standardizing the entire alarm management in all our units, starting with Intensive Care," explained Alexandre Benoist, clinical engineer and project manager, "because outsourcing alarms in an IC room means outsourcing patient alarm messages on at least five different medical devices, of different brands [...] These are all different communication protocols that cause configuration difficulties." These devices cover monitoring devices and respirators/ventilators, as well as dialysis, infusions and nutrition pumps. Another problem was finding tools to receive this information, adapted to care environments, to increase caregiver mobility.

"The project began with intensive care needs, namely managing caregivers' fatigue alarms, achieving silent resuscitation to improve the comfort of patients, allowing them to rest and avoid post-traumatic stress," said Benoist. Our ambition was also to reduce the number of nurses' requests by automatically redirecting alarms to the right caregiver on their work mobile."

Finally, Ascom has deployed an IP-DECT solution for EDF's nuclear power plant control rooms, by adapting its d81 terminal to meet the control room emission power level requirements.

Upcoming projects.

"To date, around 1500 access points, 2500 terminals and 15 alarm servers have been deployed in our various factory groups. *Operational teams are better supported and protected on a daily basis. Alarms and alerts are communicated in real time to the person in charge of interventions, which improves responsiveness and decision-making,"* **explained Jerome Susini.**

Soon, in French Guiana, a new EDF site will be equipped with the Ascom mobility solution and alarm servers.

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Ascom quickly adapts to demanding work environments for implementing safety solutions.

In 2015 and 2017, several projects were launched to meet employee work constraints and guarantee their safety through the intelligent management of alarm reports, a system that has become obsolete at EDF.

Many employees are on the move or isolated: maintenance technicians, production control agents, etc. Ascom DECT mobile devices are associated with a software platform in a double objective: having a global view in real time of all critical flows and communicating them to the right person at the right time. This ensuries the safety of collaborators, machines and infrastructure linked to events such as floods, fires, low water levels, and to the robots involved in site production. The Ascom solution makes it possible to ensure the reporting of information in the form of alert messages in an automated and centralized manner, and to redistribute information and the trace events by providing an activity log and response and intervention time statistics.

At the same time, for its project located in the Nord Department, site of the first Combined Natural Gas Cycle (CGC) in service in France, Ascom also responded to the specific needs of the Bouchain site, with the addition of the PTT *(Push To Talk)* function, enabling rapid triggering of "fleet calls" for broadcasting massive alerts as part of EDF's Internal Organization Plan (IOP).

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