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Universitätsspital Basel

Reliability and Efficiency



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Alarming for Life and Technology



ALARMING

"When every second counts"

The University Hospital Basel triggers over 30,000 alarms per month. The alerting in medical emergencies, such as cardiac arrest, is timecritical and must always function reliably. The hospital relies on the ATT AG AMX Alarm Management Solution for this purpose.

- Reliable Alarming

The University Hospital Basel is among the leading medical centers in Switzerland and maintains a high standard that is internationally recognized. Physicians and nursing staff provide care around the clock based on the latest scientific findings and state-of-the-art medical equipment, ensuring the well-being, safety, and recovery of their patients.

Critical events, such as a cardiac arrest, a technical malfunction, fire, or water damage, can be lifethreatening or result in costly consequences for a hospital. To ensure the highest possible safety and minimize damage, it is essential to quickly reach the responsible individuals. The use of the AMX Alarm Management Server by ATT AG reliably ensures that the right people can intervene on-site early in an emergency.

In 2004, the University Hospital Basel replaced the then-existing pager-based personnel paging system with the ATT AMX Alarm Management Server and 1750 DECT devices. Thanks to the reliability and flexibility of the ATT solution, it has been continuously adapted and expanded in the 14 years since it was put into operation.



COMPREHENSIVE ALERTING CONCEPT

Now, the ATT AG AMX Alarm Management Server, in its third generation, operates on a UCC Mitel MXOne with about 3800 DECT devices, and a comprehensive alerting concept with prioritizations and escalation levels has been implemented. The highest priority is given to cardiac arrest (REA) alarms, which are emergencies such as, for example, cardiac arrest.

REA-Alarming and more

The alerting person records a voice message over the phone with the most important information about the patient's condition. A group of individuals receives a preliminary announcement via SMS. Shortly thereafter, the voice message with the details of the alert follows. The system monitors the receipt of the message (monitoring), ensuring that all individuals are informed.

In addition to the cardiac arrest (REA) alarms, there are also fire alarm (BMA) signals from fire detection systems, climate monitoring, the building control system "Leicom", the security and location system "Winguard", as well as from other medical systems. The reliability, stability, speed, and prioritization of alarms were central requirements for the implementation of the new alerting concept.

- Alert notifications via various channels

No matter where the responsible individuals are located, the information relevant to the event reaches them as a voice message via phone call, DECT-SMS, SMS, or pager message. Nested multiple alarm levels can be executed simultaneously. Manual ad-hoc alerting (DECT-SMS, SMS, pager) as well as the fully centralized and automated processing of all external alarms are also feasible.



MONITORING AND SECURITY

03

"The rapid alerting has massively increased efficiency and the monitoring provides greater security."

Matthias Hänggi Technical Service Telephony / Alarm Server

360° Building Surveillance

Today, the alarm messages from the building control system are also sent to the alarm center. The building technology specialists are manually summoned from a control center. This significantly reduces downtime for air conditioning, ventilation, elevators, or automatic doors.

High Availability and Fail-Safety

The entire alerting system is designed with redundancy to ensure maximum availability and fail-safety.

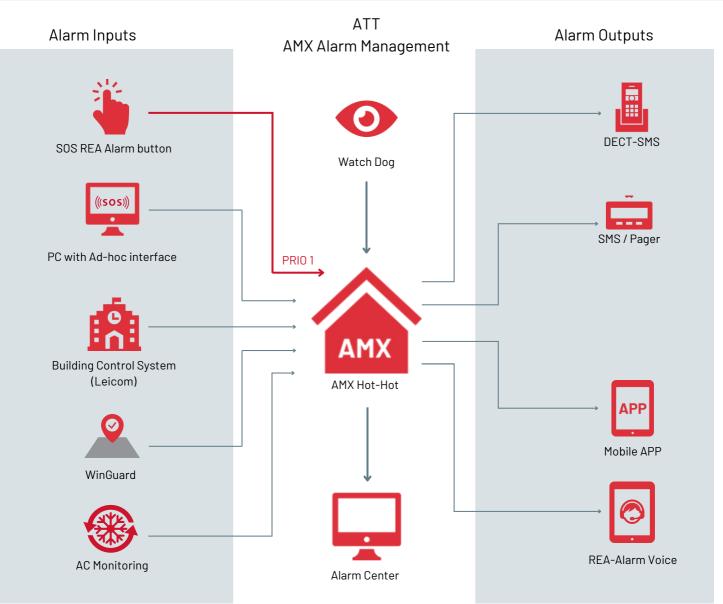
Advantages for Unispital Basel

01 Stable and fast alerting 02 High volume is securely processed 03 High availability and security 04 Continuity of the solutions regarding new features and interfaces 05 Standard components and thus a high level of investment protection



ALARM ARCHITECTURE

With its AMX Alarm Management Solution, ATT AG has achieved significant progress in the efficiency and intelligence of alerting systems. This innovative solution enables a rapid and precise response to emergencies by utilizing cutting-edge technologies to intelligently process and prioritize alarms.



04



IMPLEMENTED SOLUTION

Seamless Migration

A key concern and critical success factor in the project, which was jointly realized by system integrator Damovo Switzerland AG and ATT AG, was the seamless migration. Downtime in a hospital environment is impossible and would have fatal consequences. Thus, the project was carefully planned and implemented with the utmost care to the satisfaction of all parties involved.

Guaranteed Further Development

As the needs and requirements regarding security continuously change, the alerting system must also adapt.

05

Benefits of the deployed solution

01 Redundant systems (Hot-Hot with Load Balancing) 02 Monitor monitoring / control of interface alarms 03 Real-time monitoring - monitoring of all ongoing events 04 Active personnel monitoring with location tracking via WinGuard 05 Integration of building control system "Leicom", climate monitoring, and "WinGuard" 06 Deactivation of alarm groups and alarm points for service windows 07 Linking of main and secondary alarms 08 Alarm notification via DECT-SMS, SMS 09 Alarm via phone call (REA) 10 Ad-hoc alerting via alarm center 11 Reporting of alarms