INDUSTRY
Hospitals, Healthcare

END USER
Targu Mures Emergency County Hospital
Targu Mures Emergency County Hospital was opened in 1981, with 1200 available hospital beds and 26 clinical specialties including a tomography station and a RMN laboratory, to provide health-care for Mures area inhabitants. The neighboring counties population: Mures, Sibiu, Harghita, Covasna and Brasov can also require medical treatment, which mean more than 2,000,000 citizens. The Targu Mures E. C. Hospital is leader from the rest of the Romanian E.C. hospitals, regarding ICM index (complexity index health cases).

BUSINESS OBJECTIVE
Through several years, the hospital was successively upgraded, considering new health equipment and also infrastructure consolidation and from the last months of 2010 year, the hospital choose to install the newest Bosch fire detection technology. The required system needed to provide full protection for all the hospital areas, from hospital rooms, through specialized treatment and surgery areas, and also administrative and common spaces.

SOLUTION
From the beginning, the technical requirements for the fire detection and alarming system was very complex. The required system should be of course addressable, but more than that should be configured for functioning in a particular stressful environment, with high false alarm probabilities and also with the possibility to keep the system functionality in particular cases of structural damages due to different causes. The standby time for battery back-up was required up to 72 hours.
To fulfill those requirements, was proposed a FPA5000 based fire detection system, with redundant MPC controller, redundant LSN300 loop modules and also redundant UPS power sources and BCM modules. The MPC controller redundancy is necessary for more than 512 fire alarm generator devices (according EN54) but loop modules redundancy and also power source redundancy are offered only for the highest rank safety systems.
Due to the Bosch performant technology, the offer accomplishes all the mandatory technical criteria and was accepted for the final tender. Need to be mention that only few competitors fulfill all the technical requirements.
All the loop devices was configured as addressable, including sirens. The alarming and evacuation procedure was configured according fire safety rules and requirements, in stages, first for the fire alarmed zone and after a time delay (calculated according people displacement capacity of the evacuation paths) for the adjacent zones and also for the rest of the hospital areas.

RESULT
At the end, the system consists out of: FPA 5000 fire panel with redundant MPC controller and 13 redundant LSN300 loop modules, 640 smoke detectors, 33 heat detectors, 91 multisensor OT detectors, 55 manual call points, 18 addressable loop modules and 56 addressable sounders.
The system was successfully tested according client requirements and also according Romanian Fire Brigade requests. The Bosch FPA5000 full redundant and addressable fire detection system provides the highest safety level, the smallest false alarm rate, easy programming according fire safety scenario and also saved client money because of complete loop powered devices with small consumption.

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