Network Alive Check Module
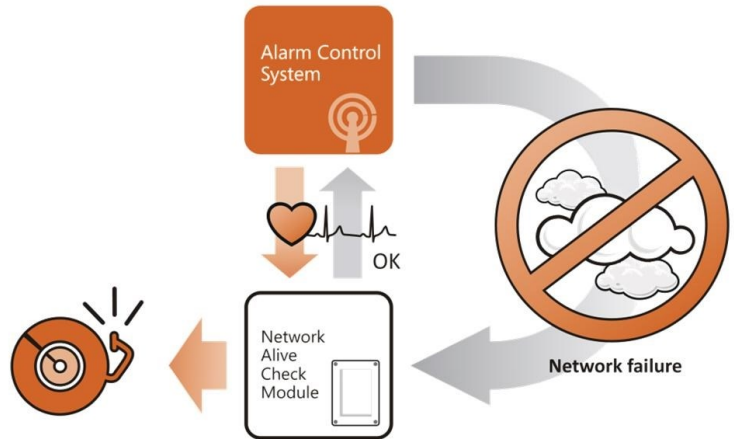## Monitoring of the radio network

Warning if radio network fails

Whenever a critical situation occurs, for instance a lone worker alarm being raised or a radio emergency button being pressed, it is of great importance that the radio network is alive and functioning.

The Network Alive Check Module constantly verifies through heart beats, that the network and the ZONITH Alarm Control System is operational.

In case of a faulty network or a failure in the Alarm Control System the Network Alive Check Module warns the staff through flashing lights, sound or even via GSM based SMS that there is a problem.

The Network Alive Check Module is particulary relevant in situations where there is no 24/7 network monitoring and where it is of critical importance that the radio network is operational at all times.

When the Network Alive Check Module detects an error, it quickly alerts the lone worker or other staff by means not dependent on the faulty system itself. It could be flashing lights or sirens. It can also reach any other designated personnel by SMS or through SCADA-systems.

Functionality

The Network Alive Check Module consists of a small, robust hardware unit, and ZONITHs software package Alarm Control System installed on a Windows PC. The module can monitor TETRA, Motorola MOTOTRBO and Hytera DMR radio networks.

The hardware unit connects to the PC via a serial cable and through heart beats it continuously checks the network and selected vital parts of the Alarm Control System. If it gets a faulty answer, the hardware unit will activate designated relay outputs and send out SMS messages (SIM card must be inserted in the unit). The relay outputs typically activate warning lights, sound or SCADA-alarms. When the system is alive again, the relays in the Network Alive Check Module are reset.

The Network Alive Check Module sends a "heart beat" to the Alarm Control System which transmits the heart beat onto the radio network. If there are no faults the heart beat is received by a receiving radio which passes it onto the Network Alive Check Module unit via the Alarm Control System. If the heart beat is not received by the unit it will go into alarm state.