CUSTOMER SUCCESS STORY

VESDA PROTECTS 39 FACILITIES, RESULTING IN BETTER RESPONSE TO FIRE ALARMS

The Challenge

Between 2000-2005, Wuhan Telecom installed 112 VESDA aspirating smoke detectors. Installed in facilities such as meter rooms, exchange rooms, data rooms and switch rooms, the VESDA detectors provided the earliest possible warning of a fire event, ensuring the Telco's service provision was not interrupted by fire.

Although Wuhan Telecom were very happy with the performance of the VESDA systems, they needed a solution for monitoring and maintaining them. The many facilities were spread over a wide geographical area. It was a full time job to respond to any alerts raised by the VESDA detectors, adjust their settings to suit local conditions or to test the units to ensure they were working properly. Wuhan Telecom also wanted to take advantage of the smoke level data gathered by the VESDA units. Being able to continuously monitor the change in smoke levels would allow a staged and appropriate response to any fire situation that might arise.

Wuhan Telecom wanted a centralized system that would allow trained operators to remotely monitor and manage the multiple VESDA systems from one location.

The Solution

Wuhan Telecom presented the problem to their local fire company, Chu's Fire Engineering Co. Ltd, who service and maintain Wuhan Telecom's VESDA systems. Chu's Fire suggested three options:

1. Connect the VESDA detectors to a third-party monitoring system via the relays inside the detectors
2. Connect the VESDA detectors to a third-party monitoring system via the open communication protocol available for the detectors
3. Implement central monitoring via the VESDA System Manager (VSM4) software provided by Xtralis.

PROJECT:
Wuhan Telecom

END USER/LOCATION:
Wuhan, Hubei Province, China

INDUSTRY:
Telecommunications

SOLUTION:
VESDA VLP
VESDA VLS
VESDA VLC
Xtralis VSM4

Whilst all options would allow remote monitoring of the VESDA systems, only the third option would allow two-way communication to control the VESDA units, not just monitor them. This would give them the ability to adjust key detector parameters such as the smoke alarm and air flow alarm thresholds. An operator would also be able to diagnose faults, clear faults, reset a filter and initiate a system test, just as if they were standing in front of the detector.

Wuhan Telecom decided to implement the built-for-purpose VSM4 software. Its tight integration with the VESDA detectors offered much more functionality than the other two options.

VSM4 is a powerful software package for remote and central monitoring of multiple VESDA device networks. It offers the following key features:

- Alarm and fault response management
- Event analysis and system optimization
- Fully integrated floor plan design tools
- Real-time graphical event indicators
- Event log archiving for later analysis
- Extensive reporting capabilities
- Offline and online configuration
- Multiple language support
- Text2Speech
- User access control
- Comprehensive configuration and commissioning of all VESDA devices

Chu's Fire worked closely with Xtralis on this project. They constructed a local area network using ADSL, each remote site being assigned a fixed IP address. All the sites were connected to each other via a Serial-to-Ethernet device (S2E), and central monitoring was done at a PC in a Central Monitoring Station (CMS).

Each branch station (remote site) has installed a VESDAnet socket (VRT-300), a VESDA high level interface (HLI, VHX-0210), an ADSL modem and a S2E (MOXA NPORT-5110). The VSM4 software was installed on a computer in the CMS, which was connected to a fiber optical switcher.

The Outcome

Installing the VSM4 system has allowed Wuhan Telecom to achieve their goal of central monitoring and sophisticated control of their VESDA systems. They now have a much better response to smoke alarms. The system also ensures a planned approach to routine maintenance of the VESDA systems. Technicians know of issues before they arrive at a facility. They can have the right equipment and knowledge to fix the problem during their visit, instead of returning a second time.

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