

CUSTOMER SUCCESS STORY

US NAVY INSTALLS **VESDA** ASD TO PROTECT IT'S HIGH-TECH STEALTHY DESTROYER

About the End User

The Zumwalt-class destroyer (DDG-1000) is the latest design in United States Navy destroyers. This advanced-technology, multi-mission ship will focus on land attack. With the latest state-of-the-art information technologies, the Zumwalt-class destroyer is designed to operate seamlessly with other naval, ground and land-based air forces in accordance with the Navy's "Network-Centric Warfare" concept of operations for the 21st century architecture, with the ability to simultaneously handle multiple land and maritime threats.

The features of this new class of warship include a low radar profile, integrated power system, total ship computing environment infrastructure, serving as the destroyer's primary LAN, automated firefighting systems and automated piping rupture isolation. The destroyer is designed for a smaller crew to be less expensive to operate.

The Solution

The ship will include an automated fire suppression system which is an advanced automated damage-control system that combines sensors, smoke detectors, cameras and automated firefighting capabilities to ensure that it has the fastest possible response time to life and ship threatening events. This system improves survivability in both peacetime and wartime while reducing the number of crew members needed for damage control.



PROJECT:
Government / Critical Infrastructure

END USER/LOCATION:
United States Navy

INDUSTRY:
Armed Forces

SOLUTION:
VESDA VLP

The Outcome

The supporting fire system is the Fire Detection system supplied by Meggitt Safety Systems that includes smoke, heat and flame detection capability. The system includes VESDA aspiration smoke detectors and Meggitt IR5 flame detectors providing fire detection capability with a low false alarm rate. For proper operations, it was necessary to interface these detectors to the LonWorks based network and the fire system on board the DDG-1000.



FieldServer Technologies were looked to by Meggitt Safety Systems to quickly and reliably design the VESDA and MODBUS RTU to LonWorks protocol interfaces necessary to integrate the smoke and flame detectors to the LonWorks network. FieldServer's extensive protocol library and experience provided the solution for the network integration.



LonWorks is a trademark of Echelon Corporation
VESDA is a trademark of Xtralis
Meggitt is a trademark of Meggitt PLC

About VESDA

- Coverage up to 2,000 m² (21,520 sq. ft) per detector, providing cost effective smoke detection, regardless of the size or configuration
- Flexibility in design of pipe networks, ensuring a cost-effective and fit for purpose fire engineering solution
- Customisable to address the unique environmental characteristics
- Simple installation and verified performance at commissioning
- Low maintenance, saving both time and expense