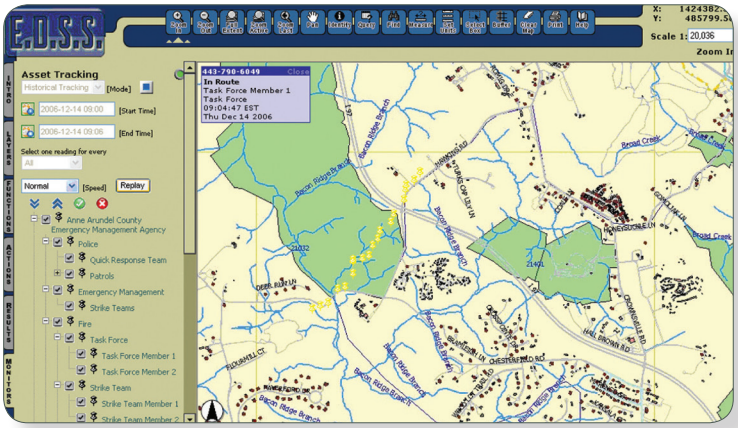


Emergency Display Sensor System (EDSS) tracking display

Anne Arundel MCCU (left); vehicle mounted with camera (right)

Emergency Display Sensor System (EDSS) Secure Wireless Video Surveillance

NASA (with Anne Arundel County EMA / Annapolis Police & Naval Academy)

PRODUCTS USED

- FIPS 140-2 Outdoor Wireless Interface (3e-523-3)
- FIPS 140-2 / 802.11i Video Server and Wireless Mesh Access Point / Bridge (3e-525V-3)
- Emergency Display Sensor System (EDSS) / InfoMatics® Integrator Middleware

Challenge

NASA was seeking ways to improve management capabilities during emergency situations and to facilitate better tracking and communications between the first responder teams and Emergency Operations Center (EOC) personnel. A mechanism allowing the EOC and the Mobile Command Center Unit (MCCU) to monitor the physical location of responders on the scene and to know their status to better manage and improve the response to emergency situations was needed.

Comprehensive knowledge of the situation is critical for both the EOC and the MCCU Live video display of the scene was needed at both locations to allow operations managers to visualize the scene, rather than simply interpreting verbal communications describing unfamiliar geography, critical assets, and environmental threats present. In addition, there needed to be a way to measure the dangers of CBRNE threats without having an individual be exposed during data collection.

Knowing responder locations, being kept abreast of a situation, and having a means to collect data from a remote sensor to improve reactions and response times is vital. Video displays from the location are crucial for evaluation of the scene. The solution had to provide real-time, actionable information.

Solution

3eTI provided a solution combining wireless technologies and Web-based software to deliver an improved centralized perspective for emergency situations. 3eTI's Emergency Display Sensor System (EDSS) software was installed on the MCCU to provide a comprehensive viewing perspective of the situation. The specialized Web-based Geographic Information System (GIS) application enables a spatial realtime perspective of responder locations, sensor alerts, and video views relative to the scene.

Responders were provided GPS-enabled cell phones to send and receive coordinate data and status messages. The responder's locations are displayed dynamically on the EDSS display screen. Responder icons reflect the organization they represent — such as fire, rescue, police, or canine — with colors indicating the status of the individual, including in route, on-site and off duty.

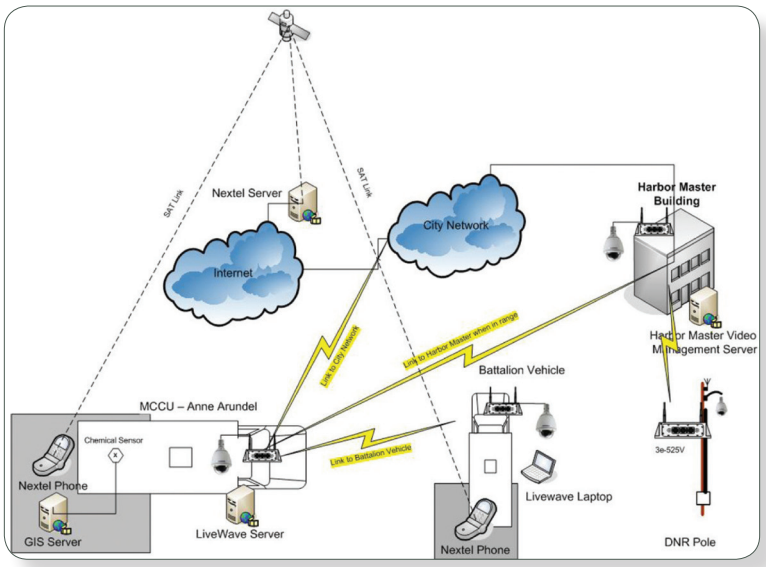
To collect the information, a number of secure wireless video cameras and video servers were installed at locations of potential threat (Annapolis City Dock), on the MCCU and on the captain's battalion vehicle for advance viewing of the situation as the first vehicle arrives at the scene.

Benefits

3eTI created a specialized, yet non-proprietary application that is easily implemented and essentially plug and play for the customer. Information can be sent wirelessly and monitored in real time by the EOC and quickly disseminated to field personnel, allowing for immediate reaction and response, before a situation might escalate. In collaboration with Anne Arundel County EMA, the Annapolis Police and the Naval Academy established their own systems based upon the same technology, enabling video to be shared between their systems and expanding video coverage while still operating in a secure environment. The solution is highly scalable —enabling additional sensor monitoring to be added as needed — and is highly secure, meeting NIST's IEEE 1451 standards for connecting smart transducers to networks.

About 3eTI

3e Technologies International (3eTI), an Ultra Electronics company, is a leading provider of highly secure wireless networks that enable critical systems security, infrastructure security and industrial automation for the military, government, industrial and utility markets. Its product portfolio includes proven and robust secure wireless mesh networks, sensor networks, cyber security, and perimeter security solutions, deployed for a range of applications, including military base security, onboard military ship communications, rapidly deployable public safety communications, and advanced metering infrastructure for SmartGrid programs. 3eTI's platforms are approved for use by the most stringent and demanding customers: the U.S. military.



EDSS Configuration

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