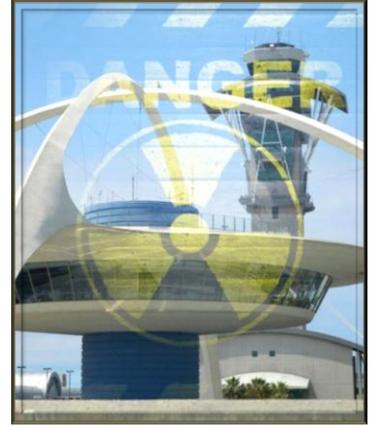




A PROTOTYPE TO CONNECT THE GLOBAL NUCLEAR DETECTION ARCHITECTURE

AN INFORMATION SHARING SUCCESS STORY

Ten years ago, a radiological sensor was triggered in a cargo storage facility at Los Angeles International Airport. After donning the appropriate multi-layered hazmat suits, responders entered the facility to measure the amount of radiological material present. Foggy face shields and poorly lit conditions caused a responder to misread his meter, resulting in a stressful, risky, and false radiological alarm response that nearly shut down all cargo and air operations at one of the world's busiest airports.



A MUCH IMPROVED SYSTEM TODAY

That scenario would not occur today. Emergency responders, managers, and leaders in the Los Angeles region employ off-the-shelf technology to share chemical, biological, radiological, nuclear, and explosive alarm data with each other. A wireless network now connects legacy sensors, providing real-time information to responders and operations centers at every level of government to enhance decision making and response capabilities.

NATIONWIDE RADIOLOGICAL/NUCLEAR ALARM DEMONSTRATION

The Program Manager for the Information Sharing Environment (PM-ISE) recently partnered with the Department of Homeland Security Domestic Nuclear Detection Office (DNDO) to demonstrate real-time connectivity of standardized radiological and nuclear alarm data from multiple detectors deployed by federal, state, and local participants in the Global Nuclear Detection Architecture.

This partnership culminated in a live demonstration that included twelve Los Angeles-based government agencies, the Kansas City Regional Terrorism Early Warning Group (KCTEW-Fusion Center), DNDO's Joint Analysis Center, U.S. Customs and Border Protection's (CBP) PRIDE system, and the Defense Threat Reduction Agency. Observers viewed live operational displays from Los Angeles, Kansas City, CBP, and DNDO centers simultaneously, to track a scenario in which law enforcement, intelligence, and cargo screening test data were shared in response to a simulated threat.

INFORMATION SHARING AND COMMON DATA STANDARDS

This information sharing prototype was developed using common data standards and an off-the-shelf hardware solution originally used in the banking industry and capable of transmitting millions of transactions per second. DNDO's use of information sharing standards, such as those from the National Information Exchange Model (NIEM), Organization for the Advancement of Structured Information Standards (OASIS), and American National Standards Institute (ANSI), is the key to establishing connectivity between thousands of detectors nationwide.

Live instrument readings and map interfaces now can appear on multiple viewers across the country displaying alarm information and providing web links to more detailed information. Data is integrated into NIEM-conformant standards and routed, as appropriate, to other systems and users in a familiar format.

By connecting detectors to fusion centers, first responders, operations centers, and other mission partners, we can increase equipment effectiveness, eliminate redundant inspections, and maintain the flow of commerce. This collaboration between federal, state, and local partners proved that information sharing and common data standards can:

- Save money
- Improve situational awareness among operational decision makers and responders
- Decrease risk to responders
- Be implemented regardless of location, data language, standard, or viewer

