

**Request for Information:  
Operator Interface & Management Applications for Command and Control**

**PROGRAM DESCRIPTION**

The Department of Homeland Security, Science and Technology Directorate (DHS-S&T), Explosives Division, has been tasked to conduct operational field demonstrations of remotely operated and standoff explosive countermeasure technologies to address the threat from suicide bombers, as well as leave-behind and vehicle-borne improvised explosive devices. DHS-S&T's Standoff Technology Integration Demonstration Program (STIDP) is designed to accelerate the development of standoff and remotely operated explosives detection technologies, related technologies, concepts of operations, and training. The ultimate goal of the program is to prevent explosives attacks at large public events and mass transit facilities via a spiral development approach.

The purpose of this Request for Information is to identify interested parties or teams with existing or emerging command, control, and communications (C3) technologies or systems who wish to participate in field tests to evaluate integrated countermeasures to detect person-borne improvised explosive devices.

**PROBLEM STATEMENT**

The C3center operations and the supporting infrastructure are critical components in the operations of any countermeasure architecture. System operation and management applications and integration solutions are needed for deployment in a command center for testing countermeasure architecture operations. Operations include law enforcement personnel using a variety of standoff sensor systems geographically distributed over an outdoor public venue to screen patrons attending events, such as hockey games. Software, middleware, and other relevant solutions are needed to provide and/or integrate area surveillance cameras for situational awareness; threat and asset evaluation, prioritization and management; and support and record screening and interdiction decisions; A single operator interface is needed to control a variety of integrated sensors and screening systems; plays back in real time (on the fly), and requires only limited operator customization. Desired functionality includes coordinate-based mapping for the relative position of people approaching the venue. The optimum solution would be customizable and executable on both stationary and mobile/tablet devices.

The nature of the STIDP test bed requires that supporting system applications be based on an open architecture and recognized national standards. Adopted technology solutions must allow for integration functionality regardless of which sensor system may be deployed. Complete integration solutions as well as individual system components will be considered.

## **FUNCTIONAL & OPERATIONAL REQUIREMENTS**

The solution must:

- Provide simultaneous and real-time display of live and recorded data by multiple computers on a network
- Allow viewing of recorded data while real-time data are being recorded
- Provide a graphical user interface that requires minimal training and is easy to use
- Operate with standard input devices (e.g., mice, keyboard, stylus)
- Coincides with typical law enforcement operations and equipment
- Provide management and display of pre-defined system alarms
- Use system processing and data recording processes that are automated and transparent to the operator
- Provide the ability to easily and dynamically add and remove data sources with minimal changes to the system's configuration
- Provide the ability to input, view, and track data based on a date-time stamp, and store disparate types of data (i.e., video and text)
- Provide a means to archive and/or back up data generated by the application
- Provide the ability to set custom archiving and processing schedules
- Allow the movement of the archive data from one location to another (both on and off the network) without losing the ability to access and process the data
- Provide operators the functionality of interacting with camera and PTZ units through hardware and software that is easy to learn and use
- Track events based upon time and alert indices per sensor or camera
- Provide the means to search the data sets based upon time or alert indices
- Provide the ability to easily create high-quality exports of data segments both textually and graphically
- Provide the means to analyze and mine recorded sensor data
- Provide the means to perform self diagnostics
- Use a distributed network
- Provide value-added and decision-making tools
- Provide the ability to create custom views of user displays
- Provide multi-sensor and camera views during real-time events and post events.

## **INTERESTED PARTIES**

Parties with integration solutions and applications that can address the problems and requirements above are encouraged to respond. Please limit submission to a maximum of 5 pages in length (including a cover sheet) and provide the following information:

Cover Page (Page 1)

- Contact and Company Information
  - Name

- Title
- Company name
- Date of incorporation
- FY08 sales
- Number of employees
- Location
- Mailing address
- Phone number
- Web page address
- Email address
- Name/type of technology
- Technology maturity: Existing technology or technology concept
- Technology summary covering technical approach, operating principles, depth of testing conducted to date, and commercial sales, if any
- Technical background on technology operation, and number and type of components
- List of the industry standards that the technology was developed to or meets
- Whether or not the technology is or has been used in law enforcement or public venues (such as stadiums, arenas, convention centers)
- Overview of how the technology would be deployed in an operational environment including hardware, software, and staffing requirements
- Current and ongoing R&D and sources of funding (including amounts)
- Schedule for anticipated technology upgrades and associated testing
- How the technology is, has been, or can be integrated with other sensor technologies to improve the overall countermeasure performance
- Government/academia/industrial partners or potential partners
- Previous work performed in the subject area being proposed, including but not limited to work performed for the U.S. government or other federal agencies (including international)
- How your technology would need to be adapted or integrated with other components
- Description of the sensor or imaging technologies that have already been integrated with your solution, if any

Marketing brochures, fliers, published presentations or papers, and other materials that summarize the technology and more about your company are encouraged in addition to the five-page submission, but should not be substituted as a replacement for the submission.

Submit responses to this request for information electronically to Pacific Northwest National Laboratory at [stidp-rfi@pnl.gov](mailto:stidp-rfi@pnl.gov).