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Rapidly Deployable Security System Final Report CRADA No. TC-2030-01

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RAPIDLY DEPLOYABLE SECURITY SYSTEM

Final Report

CRADA No. TC-2030-01

Date Technical Work Ended: August 2, 2002

Date: February 25, 2003

Revision: 2

A. Parties

This project was a relationship between Lawrence Livermore National Laboratory (LLNL) and Leader Technologies, LLC (now known as Leader Technologies Incorporated).

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B. Project Scope

The ultimate objective of the LEADER and LLNL strategic partnership was to develop and commercialize a security-based system product and platform for the use in protecting the substantial physical and economic assets of the government and commerce of the United States.

The primary goal of this project was to integrate video surveillance hardware developed by LLNL with a security software backbone developed by LEADER. Upon completion of the project, a prototype hardware/software security system that is highly scalable was to be demonstrated.

The following tasks and deliverables were to be completed under this CRADA:

Task 1 – Assemble Smart Cameras (LLNL)

Task 2 – Provide a Network, PC, and NTSC Composite Television Monitor (LEADER)

Task 3 – Supply Data Clearinghouse Software Application (LEADER)

Task 4 – Assemble and Test a Prototype LLNL Smart Camera Digital Video Surveillance System Connected to a LEADER Software Backbone (LLNL and LEADER)

Task 5 – Develop Software Interfaces (LEADER and LLNL)

Task 6 – Document and Review Phase I Results (LEADER and LLNL)

Deliverables:

Task 1 – Two Smart Cameras (LLNL)

Task 2 – Network, PC, and NTSC Monitor (LEADER)

Task 3 – Data Clearinghouse Software License and System Preparation (LEADER)

Task 4 – Prototype Smart Camera Surveillance System Connected to the LEADER Software Backbone (LLNL and LEADER)

Task 5 – Software Interfaces (LEADER and LLNL)

Task 6 – Document Summary Report of Phase I Results and Determination of Phase II Follow-on (LEADER and LLNL)

C. Technical Accomplishments

All of the above tasks and deliverables were successfully completed under this CRADA. When the original camera was sent to LEADER by LLNL, it was received in damaged condition. The LLNL PI made a site visit to Leader to assemble the camera, which resulted in the successful integration of the video surveillance hardware developed by LLNL with the security software backbone developed by LEADER, and a prototype hardware/software security system that is highly scalable was successfully demonstrated.

D. Expected Economic Impact

The commercialization of this security based system product has the potential to provide a substantial economic benefit.

D.1 Specific Benefits

Benefits to DOE:

There is a constant need for a security-based system that can be rapidly deployed to protect man and material. The development and commercialize of this security based system product has the potential to provide a substantial economic benefit to the government and commerce of the United States by the use of the platform. This project will enhance DOE's Surveillance Program. This system could be used to protect the intellectual property assets and physical security throughout the DOE complex from attack by domestic and foreign threats.

Benefits to Industry:

There is a constant need for a security-based system that can be rapidly deployed to protect man and material. This effort resulted in a wired security shield for communicating, storing, retrieving, collaborating and analyzing signals and human intelligence input that can be rapidly deployed. This system could also be used to protect the intellectual property assets and physical security of U.S. corporations, medium and small enterprises from attack by domestic and foreign threats.

This system will benefit the general public by interfacing with and providing protection for electronic patient data records. As well as sending streaming video from Emergency Medical Technicians in the field to hospitals and medical center locations. The commercialization of this security based system product has the potential to provide a substantial economic benefit.

E. Partner Contribution

Leader successfully demonstrated the integration of the SmartCamera subsystem into their software infrastructure. The design included all graphical interfaces, communication protocol translation, and timing required to control the SmartCamera and extract data from the subsystem.

Leader plans to manufacture and commercialize this security system in two configurations, one for government and the other for commercial security purposes.

F. Documents/Reference List

Reports

Software and hardware interface documents were developed during the course of the SmartCamera subsystem research and prototype design and were provided to LEADER.

Copyright Activity

No copyright material was generated by LLNL.

Subject Inventions

No inventions were created by LLNL during the course of the CRADA work.

No subject inventions were disclosed by the Industrial Partner.

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Final Abstract (Attachment I)

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B. Purpose and Description

The agreement with Leader was to deliver a SmartCamera system with a camera, and a viewer (server) that were to be installed at the Leader building in Ohio. In addition, the camera was to be integrated into the Leader software/hardware system and a demonstration of the integrated system was to be performed. This was completed and the Leader system was able to demonstrate the functionality of the SmartCamera in the resulting test/evaluation configuration.

C. Benefit to Industry

There is a constant need for a security-based system that can be rapidly deployed to protect man and material. This effort resulted in a wired security shield for communicating, storing, retrieving, collaborating and analyzing signals and human intelligence input that can be rapidly deployed. This system could also be used to protect the intellectual property assets and physical

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security of U.S. corporations, medium and small enterprises from attack by domestic and foreign threats.

This system will benefit the general public by interfacing with and providing protection for electronic patient data records. As well as sending streaming video from Emergency Medical Technicians in the field to hospitals and medical center locations. The commercialization of this security based system product has the potential to provide a substantial economic benefit.

D. Benefit To DOE/LLNL

There is a constant need for a security-based system that can be rapidly deployed to protect man and material. The development and commercialize of this security based system product has the potential to provide a substantial economic benefit to the government and commerce of the United States by the use of the platform.

This project will enhance DOE's Surveillance Program. This system could be used to protect the intellectual property assets and physical security throughout the DOE complex from attack by domestic and foreign threats.

E. Project Dates

March 19, 2002 to August 2, 2002

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