

Beacon Technologies, Inc.

SmartGate/Mobile Sentry Force Protection Solution

The Problem

As directed by the Chief of Naval Operations, provide Waterside Security, Flight line Security, Perimeter Security, and Integrated Command and Control in an effort to:

- **Increase Security**
- **Provide Convenience to the Member**
- **Reduce Manpower**

The Solution

Develop an integrated solution using COTS products to provide a low risk, high dividend solution for countering physical threats...

FOR MORE INFORMATION
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Protecting the lives of our sailors and our ships from an intrusive event by a terrorist threat is a complex yet high priority force protection challenge that is faced both at home and around the world. After the terrorist attacks against the USS Cole and the events of 9-11, the Chief of Naval Operations directed CNO-N34/NCIS-24 to begin investigating solutions that would increase security and accountability and at the same time provide convenience to military and civilian personnel while reducing the overall manpower.

WHY SMARTGATE?

The purpose of the SmartGate/Mobile Sentry solution is to know and control exactly who is allowed access to the base and when. Through the deployment of automated vehicle ID and Smartcard readers as well as manned lanes using wireless PDA's, Force Protection personnel can validate both the vehicle and the cardholder as they enter or leave a facility as an enhancement to perimeter security.

WHAT IS SMARTGATE?

SmartGate is the integration of a high-speed, wireless broadband network to connect a Security Management System to long range RFID readers, vehicle identification readers, cameras, digital video recorders, and gated control arms to manage the entry of vehicles and personnel to a Naval facility.

SmartGate also integrates a 3rd generation smartcard based on the RFID ISO 15693 (13.56Mhz) standard and a long range reader developed to interrogate and authenticate the smartcards from a distance up to 3 feet away.



WHAT ARE THE OBJECTIVES?

The primary objectives of SmartGate are to:

1. Use COTS products to create a low risk, high dividend solution for countering physical threats.
2. Provide an automated (unmanned) solution to allow known, trusted individuals access to the base without human intervention while maintaining a high degree of security.
3. Provide thorough interrogation and greater accountability for manned verification through the use of wireless handheld/wearable computers.
4. Maintain a reasonable traffic flow during peak hours.
5. Provide a modular system approach that embraces the latest security standards.

WHAT HAS BEEN TESTED?

The components that make up a SmartGate and have been field tested are:

- ISO 15693 Smartcards
- Long Range ISO 15693 SmartCard Reader
- Integrated Security Management System
- Wireless Handheld/Wearable Computers
- Mobile Sentry Software
- Badging System for ISO 15693 Smartcards
- Vehicle ID Reader
- Gate Arm Controls
- Video Cameras
- Digital Video Recorder
- 802.11a/b Wireless Broadband Network



The testing process included a group of volunteers from the USS John C. Stennis, home ported at NAS North Island. Through a RF connection set up between the North Island Pass and ID office and the USS Stennis, volunteers participated in photo registration aboard ship. Smartcards and vehicle decals were distributed that allowed volunteers to use an automated lane that interrogated either the assigned vehicle ID, the smartcard, or both to allow entry onto the base.

A second group used their current military ID or Common Access Card (CAC) and entered the base through a manned lane where Force Protection Personnel used the wireless handheld computer to interrogate their ID, perform a visual comparison to the picture in the ISMS and then grant or deny access by controlling the gate arm using the wireless device.



The system was tested under various Force Protection Conditions as well as during periods of high and low traffic volume. Data was captured to evaluate the number of members who could be authenticated and allowed access on an hourly basis. Testing of "SmartGate" resulted in an average throughput of 669 vehicles/personnel per hour in each unmanned lane and 229 vehicles/personnel in each manned lane.

THE WAY AHEAD

The suggested permanent configuration would be 3 inbound/outbound lanes providing authentication of as many as 2000 vehicles/personnel per hour. Based on the overall results test bed integrators, NCIS/N-34 and CNRSW Project coordinators recommended that NAS, North Island Command have the SmartGate/Mobile Sentry solution installed as a permanent gate solution. NASNI Command concurred with the recommendation and installation began in January 2003.

Protecting the men & women who protect us...