

# RFID Adds to Security at Virginia Port Authority

Savi Networks and GE Security tapped to protect all three of the port authority's terminals.

By Claire Swedberg

Oct. 23, 2006—The Virginia Port Authority is deploying RFID systems from Savi Networks and GE Security to improve the security and efficiency of the processes surrounding its cargo container shipments. 'The authority is joining a growing number of ports worldwide that are deploying RFID technologies for this purpose.

GE Security's CommerceGuard Container Security Device (CSD) includes an RFID tracking system that transmits data to CommerceGuard readers operating at 2.4 GHz and stationed within a 100-foot range. The CommerceGuard system also contains sensors designed to detect whether cargo-container doors have been opened, as well as other events that might indicate tampering has taken place; such data can be recorded onto the RFID tags.

Savi Technology's offerings include Savi Tag ST-676 ISO Container Security Tags for RFID tracking, which transmit data at 433 MHz to its readers stationed within a 100-foot range. Sensors are optional, but if used, the RFID tags can record whether a container door has been opened or closed, or whether there has been any shock to the container. These sensors can also detect changes in humidity or temperature measurements, just as they can with the CommerceGuard system.

Port of Virginia has three separate terminals: Norfolk International Terminal, Newport News Marine Terminal and Portsmouth Marine Terminal. The GE system has been in place at all three terminals since July. Within the next month, the Virginia port will have Savi's RFID readers and antennas operating at all three terminals, says Ed Merkle, director of port security and emergency operations for the Virginia Port Authority.

"We're starting with the lowest hurdle," says Lani Fritts, Savi Networks' chief operating officer. That lowest hurdle is the installation of readers at the exit and entrance gates, which provide details about containers as the shipments arrive and depart from the port. Down the road, the port may install RFID readers on cranes, which will allow further detail as to when the containers are unloaded or moved at the port. Fritts says there is no specific date yet for crane installation.

Savi, in partnership with Hutchinson Port Holdings, has either deployed or begun deployment of its RFID system in 80 port terminals throughout the world. In July 2006, cargo terminals in Georgia, including those operated by the Port of Savannah, were equipped with Savi Network RFID readers under the direction of the Maritime Logistics Innovation Center (see Georgia Cargo Terminals Becoming RFID-Enabled). Like the RFID system at these terminals, the Virginia Port Authority system will provide cargo owners and carriers with data regarding the location—and, in some cases, the condition—of containers passing through the port.

Savi Networks began providing RFID technology at ports in April 2005. Savi provides the SaviTrak information service, which allows shippers, logistics-service providers and transportation companies to manage and monitor their shipments over a secure Internet connection. The SaviTrak information service is

integrated with an open technology platform that receives and processes data feeds from standards-based RFID technologies, as well as bar codes, EPC-compliant passive RFID tags and GPS.

Similarly, the CommerceGuard system provides tracking information to its customers, and to customs agents. If a container has been tampered with, for instance, the CSD sends an alert to the RFID reader when it comes within range of the port. That data is then provided to the container shipper, who can then halt and inspect the container. CommerceGuard also provides information services through a secure Internet database that a shipping customer, the port or government agents can access with a password.

The port is using both Savi Network and GE Security systems in the effort to reach out to as many RFID-enabled customers as possible, Merkle says. Savi and GE Security, he explains, seem to be the major players in this arena. Only a small percentage of carriers and cargo owners are currently tagging their containers or products with RFID tags, but the numbers are growing. To make it worthwhile for shipping companies to use the tags, Savi's Fritts points out, there needs to be a significant number of RFID-enabled ports.

Price is an issue, as well: RFID tags for containers can cost from \$10 to \$100, depending on the features they include.

Savi Networks is currently focusing on introducing RFID technology at the highest-volume ports, as well as those with special security issues, such as high smuggling or crime rates. The Port of Virginia is the third-highest-volume port on the U.S. East Coast, moving about 96,000 containers monthly.

The trend toward RFID use for port security may be further fueled by the Port Security Act of 2006, signed into law on Oct. 13. This act provides regulatory incentives and clarifies best practices and adherence to international standards that enhance the security of containerized cargo shipments bound for the United States.

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