

# Danish Defense Contracts With Savi

Denmark's military will use Savi Technology's RFID system for supply tracking. It joins NATO, the U.S. and the U.K. in what Savi says will become an interoperable network.

By Mary Catherine O'Connor

Nov. 18, 2004—Denmark's Ministry of Defense signed a contract with Sunnyvale, Calif.-based cargo-tracking solutions provider Savi Technology for the company to deploy an RFID solution, consisting of both software and hardware applications, to enable tracking and management of inbound and outbound shipments at key supply chain checkpoints, first within Denmark and eventually shipments into both Afghanistan and Iraq. The contract was announced this week at the Defense Asset Management Conference in The Thistle Tower Hotel, London.

Savi Technology's RFID tracking systems are already being used in NATO's Afghanistan Supply Chain, and by the U.K. Ministry of Defense and the U.S. Department of Defense. According to Bruce Jacquemard, Savi's executive vice president of global field operations, Denmark's Ministry of Defense plans to move toward integrating its supply chain operations with NATO's, in order to increase efficiencies. This would be made possible through interoperability of the Savi RFID hardware and the Savi network software used by both parties. This, says Jacquemard, is in line with NATO's vision of how it would like to run supply chain operations with its members. Currently, the U.S. Department of Defense and the U.K. Ministry of Defense have combined some of their supply chain operations through Savi RFID technology.

"With Savi's integrated solution, we expect to gain greater visibility and knowledge of supply movements between key storage and transport facilities," says Lieutenant Colonel Jess Rasmussen of the Danish Army Operational Command. "This project enables us to gain valuable experience with advanced commercial off-the-shelf technologies, while interoperating with our allies and integrating real-time data into our existing supply chain management software without disrupting routine processes. We also are moving toward a more automated system of managing a consignment's manifest with this technology, rather than the paper-based system we currently use."

Per the contract, Savi will provide fixed and mobile RFID readers; active RFID tags; Savi's Site Manager middleware, which will aggregate the data generated by the readers, filter it and apply localized business rules and processes; and its SmartChain supply network operating system software platform, which will link the data from the Site Manager middleware to the back-end IT operations within the Danish Ministry of Defense.

The Savi's ST-654 active tags, which hold up to 128 kilobytes of data, will be affixed to containers, pallets and other transport conveyances, or directly to large single items. These tags have a read range of up to 100 meters on the 434 MHz band. Reading and writing to the tags is done through Savi's SR-650 fixed readers and its SMR-650P mobile readers. The SMR-650P is a handheld device that has built-in Savi Mobile Manager software that enables users to scan and read, or edit the tag data and then write the data back to the tag through the mobile handheld.

To narrow down the location of tagged items from 12 feet to just a few centimeters within a warehouse or other storage facilities with many fixed readers, the Savi RFID system uses signposts. The signposts are

short-range transmitters that operate at the 123 kHz band. While the ST-654 active tags can be read and written to at the 434 MHz band, they can also be "woken up" at the 123 kHz band. In order to conserve battery life, these active tags go to sleep after being stationary for a given amount of time. The signpost transmitters are used to excite the tags, so that each tag within each signpost's range begins to broadcast its data, as well as the ID of the signpost that woke it up, thereby indicating the tag's location within a range of several centimeters, depending on the number of signposts installed.

For the first phase of the RFID tracking program, these readers, networked through the SmartChain supply network operating system software platform and the Site Manager middleware to Denmark's existing software, will be installed beginning in January at Danish Army depots in Hjørring and Broedeskov and at the Danish International Logistics Center (DANILOG) at Vordingborg. The system will become operational a few weeks later. Starting as soon as a few weeks after the system is operational in Denmark, similar systems could be installed at strategic supply locations in Afghanistan and Iraq, where the Danish military ships consignments of parts, ammo, food, medicine and other military supplies by both commercial and military ocean and air transportation.

In April, Savi announced that NATO's Supreme Allied Commander Transformation (SACT), which directs changes to military structures, capabilities and doctrines in order to improve NATO's military effectiveness, had contracted with Savi Technology to run an RFID-driven pilot project using Savi's active tags, fixed and mobile readers, middleware and SmartChain platform to manage and track multinational shipments between Europe and Afghanistan (see [Savi Adds EPC Support](#)). This project is due to be operational next week.

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