

**Olive product producer Transmed Foods and logistics provider Grupo Hemas are among those using the technology to track a container's location and issue an alert if its integrity is breached.**

By Claire Swedberg

Nov. 6, 2009—Two global companies have joined the growing ranks of those using [Savi Network's SaviTrak](#) system to gain visibility into the movement of products as they travel internationally. The system features battery-powered tags that serve as a seal to a container's door, and are embedded with a GPS receiver to locate its position and, in some cases, sensors for monitoring conditions within the container. The tags also contain a GPRS transponder to transmit ID, location and sensor data over a cellular connection, thereby enabling companies to monitor their containers' status in real time, as long as the tags are within cellular range. If a container is opened or its tag is damaged, an alert is sent to the container's owners and other authorized parties, warning them of the event. Both firms are employing SaviTrak LS and LSE tags, which have GPS and GPRS functionality; the LSE model also has built-in temperature and humidity sensors to monitor conditions within a container.

[Transmed Foods](#) will begin utilizing the system next week for shipments of sliced olives and other olive products from producers in Morocco and Spain to pizza restaurants and sandwich shops in the United States. Global logistics provider [Grupo Hemas](#)—hoping to deter theft, counterfeiting or smuggling in Mexico—has already begun using the same system to monitor containers loaded with its customers' products, so that it can determine if the containers its trucks transport are opened or rerouted.



*Hector Mora Gomez, CEO  
of Grupo Hemas*

Transmed Foods, which ships its olive products globally from growers in Morocco and Spain, sought a method of improving visibility, as well as reducing the time spent seeking inventory, and the need to keep "safety inventory" at hand in case supplies ran low in the United States. Products typically spend approximately 45 days traveling from the point of origin to the restaurants. That figure can vary by 20 days or more, however, depending on what happens in the supply chain. "Knowing the location of our goods at all times once they are loaded at the factory and in transit, and where they are at any given time, helps us manage our payments and finances better than waiting on EDI (electronic data interchange) messages from the factory or carrier," says Barry Dixon, the director of Transmed Foods.

The company also wanted a system that would notify it if a container—and thus the products inside that container—had been tampered with. In that way, the tag would serve two functions: a deterrent to potential thieves, smugglers or counterfeiters, and assurance to Transmed, as well as to its customers, that the products they receive have not been tampered with.

Transmed ships containers loaded with olive products to several Eastern U.S. ports. Once the ships

reach land, the containers are shipped by truck to a Transmed distribution center (DC), where they are unloaded and the products are then shipped to restaurant operators throughout the country. A SaviTrak tag is attached to each container as it is loaded with goods at the point of origin in Morocco and Spain, says Nick Cova, Savi's VP of commercial operations. After utilizing the tag to seal the container's door, Transmed's staff uses an Internet-connected computer to enter their own user names and passwords, in order to log onto SaviTrak software, hosted by Savi Networks. The workers then enter the container number, as well as the tag's ID number, to link the container and tag with the shipment's electronic manifest and estimated time of arrival. When the tag comes within range of a GPRS base station or cell tower, it then transmits location data, as well as information regarding any attempts to open the seal. The SaviTrak software can send alerts to Transmed's employees by e-mail or text message.

After the container arrives at the U.S. port, the tag continues to function as the container is transported to the distribution center. Once the container is opened and unloaded at the DC, the tag and the SaviTrak system are no longer in use. The tag is then returned to Savi Networks, which provides the necessary tags for the next shipment.

With the GPRS-GPS system, Transmed hopes to be more efficient at shipping required products, when they are needed, and not running too low on stock or experiencing stock overflow at U.S. distribution centers. By using SaviTrak, Transmed knows when containers have left the port in Morocco or Spain, what is loaded in that container and (when it again comes within range of a GPRS signal at the U.S. port) exactly where it is, as well as when it can be expected to arrive at the DC. In this way, Transmed can better schedule the flow of product into and out of the distribution center. This, the company indicates, will reduce the cost previously spent on labor to locate shipments, as well as on labor expenses related to the additional stock stored in the distribution center to ensure product did not run out. "Our customers will benefit from our improved control of import operations," Dixon says. "The more efficient we are, the better we are able to manage our costs. This will benefit our customers, by making us more agile, responsive and, above all, cost-competitive."

In October 2009, Grupo Hemas—which services as many as 600 locations in Mexico—began using SaviTrak to provide security. The system provides the company and its customers with assurance that the container, en route from a manufacturing site to the United States, or to the port to be shipped to Asia, is not opened and has not been diverted from its route. In this case, the firm created its own Web-based service, known as Hemaspheria, which pulls data from SaviTrak's server. Grupo Hemas' customers (typically, manufacturers of toys, electronics, perfume, liquor, tires, automotive parts or other goods) can utilize Hemaspheria to access information regarding their in-transit cargo—such as their current location, as well as whether the container had been opened. What's more, police, customs, military and environmental agency officials can also access the Hemaspheria Web site, by entering their own user ID and password, as well as the container identifier, to monitor a specific shipment.

Until now, Grupo Hemas has relied on protecting its cargo with armed escorts that travel with or behind trucks, ensuring that no one attempts to access the truck container. The escorts are not a foolproof solution, however, since they can be threatened or bribed, in which case smugglers (such as those who

might place drugs in a container destined for the United States) or thieves can still access the containers. That process also provides greater risk to the individuals trying to protect the cargo. By attaching the SaviTrak seal to the container, Cova explains, the human element is thus removed. The company receives data regarding where the trucks are, or have been, and is alerted if a container has been opened at any point during its transportation.

Like Transmed, Cova says, Grupo Hemas attaches the SaviTrak tags at the factories that manufacture its customers' goods when the containers destined for the United States are loaded. The container number and cargo details are input into the SaviTrak server, and can then be accessed from the Hemaspheria Web site. When data is transmitted from the tag, it is received by the SaviTrak server and forwarded to the Hemaspheria server, thereby allowing information to be shared with Mexican and U.S. public safety agencies.

Initially, Grupo Hemas is tagging only several hundred containers shipped from Mexican manufacturing sites and bound for the United States. However, the company intends to expand the process to tens of thousands of shipments both to and from Mexican manufacturing sites, as well as containers carrying goods to and from Asia, and to provide that data to its customers on its Hemaspheria server.

"We are optimistic that together with Savi Networks, we can grow our Hemaspheria system not only in Mexico, but also throughout Latin and North America," states Hector Mora Gomez, Grupo Hemas' president and CEO. "Soon, our next step will be to expand this service to other countries where cargo security is a problem. Companies in Mexico are used to using armed escorts to secure their cargo. Once we demonstrate how well this technology works, they love it, and can replace the expensive and risky armed-guard system."

Although it is too early to determine if or how much the system would reduce crime in comparison with armed guards, Mora Gomez notes, it is likely to be a deterrent since any tampering with the SaviTrak seal will lead to an automatic alert to public safety agencies in the area. The system has already prevented crimes related to Grupo Hemas' containers. "We have already had incidents of potential robberies of our shipments," he says, "but thanks to SaviTrak's ability to detect tampering and inform us in real time, the police were able to be dispatched to the conflict at the precise moment the robbery was occurring, so the cargo was safe."

Another recent SaviTrak user, British water company [Highland Spring](#), began employing the system in early 2009 to monitor the water it exports to the United States, the Middle East and Asia. The firm is using the system to improve supply chain efficiency, and to reduce costs related to product delays or inventory over-stocking.

In addition, Savi Network announced in August that [Coscon Logistics](#) is using the SaviTrak LS and LSE tags to enable its customers (product manufacturers) to track containers loaded with goods made in China and bound for destinations throughout the world (see [Coscon's Customers Use Tags to Monitor Cargo](#)).

## GPRS-GPS Tags Help Shippers Fight Theft, Reduce Costs

Topics/Verticals: [IT/Infrastructure](#), [Asset Tracking](#), [Transport](#), [Retail](#), [More...](#)