

# Safeguarding the Food Supply

Global Technology Resources' system uses RFID to track edible products throughout the supply chain.

By Jonathan Collins

Dec. 16, 2003—To help the U.S. food industry meet the requirements of the Bioterrorism Preparedness and Response Act of 2002 and the Country of Origin Labeling (COOL) Act, Global Technology Resources (GTR) has developed a system that uses RFID and other technologies to track food from its point of origin to its retail outlet. To facilitate this system, the company is also developing its own RFID readers and low-cost tags to meet emerging global RFID standards. The company plans to market its tracking services to companies that buy or sell fresh food such as fish, meat and vegetables, as well as to financial and insurance markets.

Although the system will also support bar codes, the company maintains that using RFID will be key to its system because of RFID's ability to automate the tracking process. "RFID is critical in certain areas of providing compliance with both acts," says Paul Cheek, president of GTR. The tags are expected to be ready within five months.

Details of those tags have yet to be finalized, but the company says that the need for its system to be able to track food internationally means it is leaning toward an EPC implementation of RFID.

Based in Starkville, Miss., the privately held startup company developed a system that uses its own Web-based management and database software in conjunction with global positioning system (GPS) and RFID technologies, as well as with biosensors linked to the RFID tags to capture and identify known pathogens.

The system uses this combination of technologies to catalog products at various points throughout the supply chain, including farms, ranches, processing plants, transport vehicles, storage facilities, supermarkets and restaurants. All information will be stored on GTS databases in association with the company's corporate and government clients.

GTS says its system will deliver real-time information and tracking of food assets for immediate identification and response to problems as they arise. If an incident of contamination is reported in the supply chain, information on the origin and destination of the tainted product is automatically retrieved.

While companies such as KSW-Microtec have developed RFID tags for food products and Savi Technology promises to combine item-level tagging with satellite coverage to track products globally, GTS maintains its ability to track food down to its components will set its offering apart. "The big difference is that our patented technology is able to track a hamburger made from meat from 200 different cows back to the source of each cow," says Cheek.

The company also says that its mix of tracking technologies will help with any food-product recall. The GTR system can give an immediate satellite image of the retail store where the affected food was discovered and

the surrounding communities that the retail store serves so that proper public health announcements and measures can be taken. The GTR system will also trace the product back through the supply chain, immediately identifying what point in the supply chain tampering may have occurred, isolate the problem, dispatch mitigation teams, provide a third-party identification and verification of the problem product for litigation purposes, and determine who is responsible for the problem, says the company.

Last month, GTS signed Ernst & Young's process control advisory services in an alliance that will see the systems integrator marketing the GTS food traceability program services to corporate clients involved in food, finance and insurance. GTS will be responsible for sales of the program through Ernst & Young and through its own sales operations and says it expects to sign its first customers within the next 60 days.

"The impact of major recalls in the meat industry, combined with serious food-contamination issues, the threat of agroterrorism, and class-action lawsuits will cause major corporations to mandate strong surveillance and external auditing of their supply partners. Regulatory-compliance issues featured in the Bioterrorism Act of 2002 and the Country of Origin Labeling Act will also add to the mandated requirements," says Cheek. "These mandated changes will assure strict compliance in order to market a product at all levels. Total product visibility in the supply chain will be maintained whether in production, processing, storage or transit. Much of that information is available today, but not electronically. Our Web-based system ties that information all together seamlessly."

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