

TOTAL ASSET GUARDIAN™

Performance Beyond Compliance



TAG3 SUCCESS STORY

**RFID ON-DEMAND MAKES
GLOBAL VALUE CHAINS WORK
FOR SMALLER COMPANIES**

A maker of non-lethal personal protection devices uses a Chinese manufacturer and a California distributor to reach customers across the U.S. Tying it all together: a virtual RFID solution layered on SAP.

CASE HIGHLIGHTS

The Customer:

Shield Defense Corporation, a maker of non-lethal personal protection devices for consumers, homeland security, the military, corrections, and law enforcement.

The Value Chain:

Global. Manufacturing is based in China. A major U.S. distribution in California sells to retailers throughout the U.S. Other distributors are located in other parts of the world.

The Need:

- Complete RFID solution across a global supply chain
- End-to-end shipment visibility
- Tight integration with trading partners
- Easy SAP integration
- Low cost point of entry
- Ability to scale solution on-demand
- "Pay-as-you-grow" pricing





Manufacturers often find themselves caught between two forces. On the one hand, they need to globalize operations — taking advantage of low cost manufacturing in one region, highly skilled talent in another, and efficient distribution wherever needed. On the other, they also need to comply with government and retailers' RFID tagging requirements. It's not always easy — especially for smaller companies — to set up the end-to-end RFID infrastructure across a global value chain. Equipment must be sourced, software installed and configured, and local laws obeyed concerning issues like radio frequency emissions.

And that's just in one location. Companies also need to integrate their RFID "points of presence" across their value chains and integrate them with trading partners — such as shipping companies and distributors. For many manufacturers there's also the issue of how to integrate RFID-based tracking into SAP and other enterprise software.

Companies want RFID technology to help enable purchase orders, shipping notices, invoices, warranties and other business tools — not be a separate island unto themselves.

That's why California-based Shield Defense Corporation turned to Universal Guardian's Total Asset Guardian™ (TAG3) — a comprehensive RFID platform that gives companies total product visibility from manufacturer to shipper to distributor to retailer to customer.

"We had been facing the difficult task of picking a solution that addresses all of our requirements and that has a short implementation cycle with quick ROI," says Shaunt Hartounian, Sales Director of Shield Defense Corporation. "Since our production is outsourced to different manufacturing locations, we needed a solution that addresses this particular situation, which is common if you work with Chinese outsourced manufacturing."

MADE IN CHINA - DISTRIBUTED EVERYWHERE

Shield Defense maintains a worldwide distributor network and also sells directly to consumers in the U.S. through its ecommerce website. Its Hong Kong-based sourcing operation provides for design, manufacturing and quality control. Manufacturing is outsourced to third-party producers on the Chinese mainland, where goods are packed and shipped by ocean freight to a staging warehouse in California. Here products are received, staged, and then picked and shipped on customer order. Non-U.S. distributors receive shipments directly from the Chinese manufacturer.

Shield Defense selected TAG3 because it is a complete global asset tracking solution that easily integrates into the company's SAP All-in-One Solution for Logistics and Finances. In addition, the cost of entry is low and Shield Defense can scale its RFID investment virtually on-demand as needs grow. That's because TAG3 is available in three deployment models that companies can easily mix and match:

TagEasy™ – A web-based e-commerce solution. Universal Guardian hosts the software and users order and pay for the RFID labels only as needed. Labels are shipped overnight to user sites and attached to items, pallets, or cartons. Web-based software links tracking data with purchase orders, sales orders, order status, shipping notices, inventory status, and other forms and reports.

TagStation™ – Similar to TagEasy except RFID label printers are located at the customer's site. A member of the Zebra PartnersFirst® program, Universal Guardian uses Zebra RFID printers.

TagCentral™ – Includes all the features of TagStation plus integration and customization of TAG3 software to enterprise requirements at customer sites. Functionality is delivered as virtual appliances — self-contained modules that run directly on hardware without operating system integration. Companies can deploy virtual appliances to hardware they already have in place without involving other applications they may have already installed there. This saves on hardware costs because users need only add incremental hardware as needed and because modules can be easily “dropped in” wherever functionality must be deployed.

TAG3 instantly leveled the RFID playing field, Hartounian says. Now Shield Defense has the global value chain of a big company with full RFID capabilities but without a time consuming and costly implementation.

“We wanted to apply RFID labels at the source, taking advantage of the inexpensive labor situation in China — without burdening our manufacturers with the need for new IT systems or complicated implementations. Our distribution partners need us to comply with EPC [electronic product code] requirements and retailer mandates. Our goods must be RFID tagged and we must send electronic advanced shipping notices to inform them about the status of their goods.”

ANOTHER PRIORITY: VALUE CHAIN EFFICIENCY

But compliance was not the only priority. Shield Defense also expects its value chain to be efficient — even though it is global in scope and even though it involves multiple third parties. That meant hitting key metrics, such as:

- Short lead times
- High inventory turn-over
- Low product count in the staging area
- Minimal shrinkage
- Minimal labor costs
- High picking/packing, shipping/receiving accuracy
- High inventory cycle count accuracy
- Efficient handling of warranty claims and product recalls

This calls for product visibility from manufacturer to retailer, and ultimately to customers — which range from individual consumers to the Department of Defense. In addition, these are the kinds of products you don't want to lose track of. They are small. They sell at a premium. And they are personal protection devices.



DISTRIBUTOR TAG3 BENEFITS

TAG3 proves that RFID benefits everyone in the value chain — from manufacturer through to the end-user customer. For distributors those benefits include:

- Lower labor costs handling items at the warehouse
- Faster turnaround from receiving dock to shipping dock
- Tighter inventory control
- More rapid, accurate responses to partners' order status inquiries
- Greater success attracting more and better customers

That's the experience of the California fulfillment house for Shield Defense. Prior to TAG3, it took a half-day for six company employees to manually break down a container's worth of pallets, just to read the barcodes off individual items — and reconcile serial numbers against purchase orders. Now pallets can be left intact — with no additional employees or time needed to capture the serial numbers. That's because RFID scanners read the serial numbers automatically and wirelessly as pallets pass through a portal at the receiving dock.

A similar process works in reverse for outgoing shipments to retailers and consumers. As products are scanned through carton walls, each is mated to a particular sales order and can be tracked to an individual customer for warranty and market analysis purposes.

RFID software integrates directly with EDI systems used to order, invoice, and track order status between partners — an integration made easier by TAG3's XML interface. Its plug-and-play implementation also means the distributor is not locked into any one ERP software vendor, like SAP or Oracle — for reduced cost and greater flexibility.

Having RFID also makes the distributor more attractive to do business with — especially for bigger, higher-quality national retailers who consider RFID a "must have" check-off when evaluating potential logistics partners.

Shield Defense Corporation produces patented and patent pending non-lethal personal protection devices designed for use in situations where mobility, accuracy, and dependability are paramount. Markets include consumer, homeland security, military, corrections, and law enforcement. Its marquee product, the Cobra Stunlight, combines a blinding spotlight and red laser with a pepper spray burst accurate up to 20 feet. The product looks similar to an ordinary flashlight.

RFID tagging begins when the Chinese manufacturer gets tags from the Universal Guardian service center in Hong Kong. This avoids the need to operate RFID equipment in China — or to apply for a site license — which is difficult to do because of the lack of RFID standards in China.

The service center centrally manages the incoming purchase orders, prints all tags to the same order, and sends all tags overnight to the manufacturing site. Plant managers arrange for unit level tagging in the manufacturing facilities. Once the last case of an order leaves the plant, shipping clerks trigger advanced shipping notices through a web-based user interface. (The interface is available in Chinese.) At the warehouse in California, a remote RFID reader scans all incoming and outgoing shipments, provides real-time inventory visibility and updates Shield Defense's SAP central consolidated database.

Shield Defense provides shipping information from its database through a secure web connection to its U.S. distribution unit. The distributor requires, and receives, prompt information on delivery status — and has total end-to-end visibility on its shipments from manufacturing to its distribution centers around the country.

REAL-TIME ACCESS TO EVERY DETAIL

“We have real-time access to every shipment detail,” says Shaunt Hartounian, Regional Sales Director for Shield Defense. “We can query the central database by delivery schedules, location, delivery dates, purchase order, or item. We are pleased to have this information available through an easy web access. We have better supply planning, and therefore fewer overhead costs managing our inventory levels.”

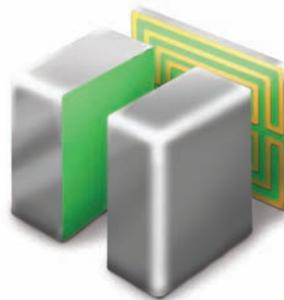
A TAG3 interface to Shield Defense’s SAP and e-commerce applications electronically updates business documents such as purchase and sales orders. Deliveries are automatically posted to SAP to enable timely customer invoicing. Sales orders are matched in the TAG3 database with the serial numbers engraved on individual flashlights. In the event of a warranty issue, the affected Cobra Stunlight is matched at the source with an item level RFID tag.

Based on which retailer receives a shipment, TAG3 automatically assigns that retailer’s RFID data and label structure to the printed labels. All Shield Defense TAG3 data is hosted in Universal Guardian’s secure hosted environment — which protects sensitive Shield Defense logistics information with the most stringent role-based access security.

Pricing for all this is straightforward. Universal Guardian charges a flat fee plus a per-label charge for each label printed. “This unique pricing model allows us to calculate the RFID labeling into our product pricing without any major IT investment,” Hartounian says.

Thanks to TAG3, small and mid-sized companies like Shield Defense no longer need to compromise their global value chains because of costly or hard-to-implement RFID requirements.

“We are very satisfied with this solution which enabled us to be mandate compliant and gives our distribution partners access and visibility into our supply chain.” added Hartounian.



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GLOBAL RISK MITIGATION

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