

White Paper

How USTRANSCOM can Empower Key OEM Suppliers to Transform Return Supply Chain with Warranty Support Under DoD RFID Mandate and Policies

The best way to predict the future is to invent it.

-- Alan Kay

Summary

Intellareturn Corporation has patented a novel application that it would like to further research, customize and pilot for DoD application. The core application asks DoD to consider automated material returns, with lost & found tracking, using passive RFID tags for its business case. The purpose of this application is to set the foundation for future supply chain improvements, today. Additionally, it maximizes the take of technology being offered with the applications of RFID being mandated by DoD to redefine and stay ahead of the curve.

The proposed solution can be mandated as part of DoD contract terms for all parts that are expensive, with manufacturer supplying within the RFID tag (placed on product itself and/or shipping carton) with required information ready to read. This RFID application provides better data and return processing under warranty terms—linked directly to warranty rules and return provisions—provided within DoD specified contract terms. It is envisioned the proposed new application will link to AIT systems and result in less paperwork and help to solve the estimated 5% of “lost & unknown” product shipments.

The proposed RFID solution represents a maintenance application, that for the first time, can provide high-resolution recall of defective items and other safety recalls.

Overview

For years, logistics and supply chain management have become leading topics among DoD divisions searching for ways to both predict and optimize their costs of business. As the challenges of the war fighter supply efforts take on increased importance, improving operational performance and efficiency has become a top-level priority.

Over the recent months, DoD and commercial companies have bought-into the benefits posed by radio-frequency identification – commonly known as RFID. This technology has existed for years and has grown in acceptance by retail, supply chain and government organizations. Initiatives in RFID are surfacing everywhere. Research leaders predict that safety measures will also prove to be beneficiaries of these RFID efforts. However, some visionaries see it forging a closer affiliation between companies and the valuable customers they interact with. While this is a great advancement for improving the operational efficiencies of DoD, much more can be done to enhance services that actually improve efficiencies and reduce costs. But, how can this be achieved?

One way is by incorporating RFID technology into the warranty, lost-and-found returns process and reverse logistics facets of product ownership.

The Solution: RFID Technologies That Provide Value

An OEM supplier would have warranty registration tied into the ID tag on the product or part as part of the vendor contract requirements. If the product was lost, it could be identified by its tag and returned via one of the major parcel carriers. If the product needed to be repaired, the customer could go online, enter information at company's website and a USTRANSCOM would arrange an automated pick up. Simplicity.

The logistics unit doesn't need to fill out a shipping label. When the truck arrives, they scans the tag and use the ID number to retrieve all the information he needs from the Intellareturn Smart Return Service database.

Intellareturn RFID-based Return ID Stamps are supported by a system built on the existing operational infrastructure of USTRANSCOM to create a global, real-time product registration, tracking and product return solution.

I. Company Information

About Intellareturn Corp.

Intellareturn – a patented, New York-based early stage company – provides RFID smart label applications that leverage product registration, return shipping and warranty service touch-points aimed at optimizing the current supplier and customer relationship technologies of their SCM, ERP and CRM investments. Essentially, Intellareturn links advanced ID technologies for powerful new logistics applications. The Intellareturn Smart Return Service can integrate with existing DoD legacy-shipping solutions, as a technology-agnostic approach to enhancing customer support infrastructure.

Intellareturn provides return technology solutions to securely identify and return virtually any object. Our wireless shipping and notification systems create real-time interaction between products and parcel shipping networks using special labels to automate identification and trigger the return of any item.

Intellareturn creates one seamless return supply chain network, where products or product packaging carton they include, are affixed with labels that can wirelessly transmit their identification to the Internet through radio frequencies. Real-time interaction between products and logistics networks via the Internet or local area network (LAN) help reduce expense in lost, stolen, wasted or delayed product returns and make quantum improvements in the overall efficiency and collaborative abilities of supply chain management.

Intellareturn enables business or consumers with a Return ID Stamp™ label or tag to securely, conveniently, and cost effectively return a product with new speed, convenience and protection benefits. This is especially effective for 'lost & found' systems and methods. For Lost & Found application, the core benefit of our system and method serves as a registration incentive to register a new product warranty. The "finder" of a missing item with a Return ID Stamp is encouraged to contact a designated location (i.e., USTRANSCOM for item pickup or return processing) based the "reward" notice on the label.

Intellareturn enables low-cost automated methods for returns—in essence, building the basic communications protocols of the Internet directly onto low-cost labels. Currently, we are focusing on passive tags but are in discussion with some new vendors who have innovative, low-cost active tags. That means that just about anything—from a shipping box, repair part, set of keys or a portable PC—can have the embedded ability to securely send and receive identification data over the Net. Combined with wireless technology, Net-ready chips create Radio Frequency ID (RFID) labels—small inexpensive labels that can live on virtually any manufactured product, spare part or packaging carton to automate the returns process.

Our network can build on or integrate with the existing operational infrastructure of express parcel carrier and USTRANSCOM networks to create a global, real-time product registration and product return solution. Logistics firms, and their customers, benefit from the Intellareturn infrastructure and technology investments linking its Web-enabled applications to USTRANSCOM legacy return systems.

Labels are wirelessly read at designated physical locations or through the Air Mobility Command's related parcel and logistic service networks. This system triggers automated pick-up and return process notification, payment and tracking. Importantly, our systems can provide return functionality through printed ID numbers or supplemental bar codes, whenever a radio frequency reader is not available at a location.

The Intellareturn automated courier pick up technology and returns network serves as a springboard for future forward and reverse logistics products and services. For example, new services cost-saving applications to the US Transportation Command are anticipated by application of Intellareturn systems and methods.

Intellareturn markets Intellareturn branded identification systems to lead with "intelligent returns," essentially creating a secure return and identification system ON-A-CHIP—where objects can wirelessly broadcast vital information about themselves to special readers. Each Return ID Stamp label connects to a database with comprehensive information about the object, including owner name, address information along with other data specific to customer needs. Such additional information can include flight/travel itinerary for airline baggage tag applications, repair or service part number, product purchase date, return shipping or EDI instructions, or the serial number for a

portable computing device or other product that needs return service under warranty. Intellareturn Corp. is based in New York City and defined as a small business vendor.

II. Past Performance Information

Our service platform is fully tested with FedEx and market-ready following three years of market development and testing. At this time, we have full flexibility to establish strategic alliances and market plans with any logistics carrier(s). While we have developed our own software systems, reader and RFID labels, we can also work to complement any bar code or RFID label manufacturer or reader technology. We're not a technology play, but all about applications for automated shipping and packaging solutions. We are a small company with the expertise and Intellectual Property to have the flexibility to integrate with other DoD logistics leaders into the AIT initiatives using USTRANSCOM worldwide shipping system. We can represent a stand-alone solution or the next level of electronic return label automation for USAF/DoD OEM supplier firms that supply high-value products/parts/shipments under USTRANSCOM networks.

Our novel solution is patented in the United States under Serial No. 6,259,367 with a continuation-in-part (Ser. No. 09/833,273). We are interested in a pilot for an efficient reverse logistics application using our proprietary systems and methods.

III. Capabilities

USTRANSCOM is the combatant command responsible for providing air, land, and sea transportation for the Department of Defense during peace and war. The Defense Transportation System is the network managed by USTRANSCOM to complete this mission, and its execution is performed by the Transportation Component Commands: the Air Mobility Command, the Military Sealift Command and the Military Traffic Management Command.

Strategic airlift is performed by AMC by optimizing military aircraft and contracted support provided by commercial carriers. Well over 90 percent of passenger movements for deployments and redeployments are accomplished using commercial airlift. Although military lift platforms often carry small numbers of troops, they are primarily used for strategic transport of cargo.

IV. Rough Estimate of Cost and Schedule

It is estimated that a prototype system and application can be demonstrated within a 6 to 12 month period at a cost range of \$150,000 to \$450,000. The range depends upon software requirements and development to link to DoD legacy shipping and return logistics solutions.

V. Major Risks

The major risk is the requirement to finalize working and co-development plan with DoD approved contractors or vendors who have proven experience with existing DoD systems and interest in RFID applications.

VI. Other Information

Intellareturn has identified partners who want to participate in other pilots that involve collaboration with DoD and outside partners for the reverse logistics area tied to UID-compliant EPC standards for RFID and more importantly, take full advantage of new benefits offered to DoD as a result of the RFID mandate. . The aim is to learn what processes need to change, what technology can be applied in different applications, and using the pilot to help evaluate future roll-out programs that save time, money and add efficiencies to reverse logistics tied to warranty related return and 'lost & found' asset tagging services.

Entigo, is an example partner already identified and expressed interest. A description of Entigo and their White Paper on warranty related returns is attached (also available online at http://www.entigo.com/whitepapers/cost_of_warranty.pdf).

We see a potential pilot during 2004 for our passive tag application for reverse logistics. This would be tied to USTRANSCOM Return Service or embedded into products themselves (i.e., product EPC 'license plate' tags or special small ID labels on physical corrugated package with instruction to use USPS for any warranty or other approved returns) for automated reverse logistics.

Our business proposition is to beta test with DoD and explore the potential for a DoD license of the Intellareturn patented applications. We believe this will prove the benefits Intellareturn brings to DoD and can lead to reduced expense and better logistics support under the AIT initiatives.

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