

# **SMALL BUSINESS RFID SOLUTION**

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(5V122)

# National Precision Bearing's Story

- Learned about RFID and UID requirements last June  
Small business supplier selling spare replacement parts to the government for weapon systems support
- and August at the DSCR and DSCC conferences and initially thought it did not affect us
- “Quotes” from RFID companies included proposals to hire them as consultants for an average fee of \$2,500+ expenses (roughly \$5,000) to assess our “needs”
- Initial implementation quotes to become DoD compliant for RFID tagging ran 30-50K
- Profit margins are already slim when selling to the government

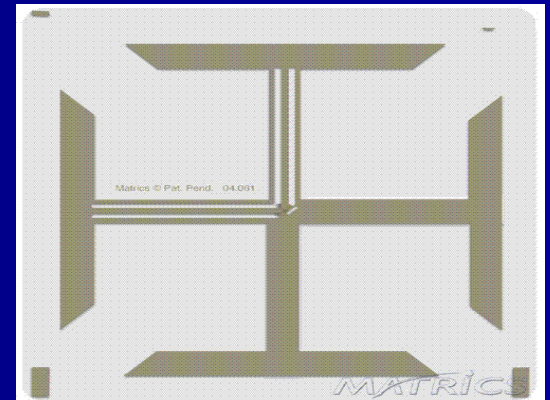


# National Precision Bearing's Story (Continued)

- Wrote a briefing to CEO and all the other O's in the company with an overview of what RFID is and how it could affect our sales and profit margins, given the initial implementation costs
- Our internal IT group whittled the cost down to about 13K
- Then we REALLY learned something
- The issue was now to find a reliable supplier for our solution
- Our solution cost us \$3,500 and we are prepared to be RFID compliant simply, affordably and with no pause in our shipping systems.

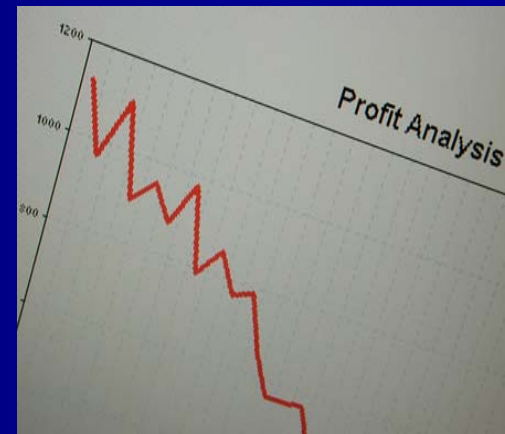
# Learning About RFID

- Have you invested expensive time and resources learning about:
  - RFID
  - DoD's mandate for supply integration
  - Implementation costs of the systems to meet the mandates?



# Is RFID Really The “Monster” Lurking In The Darkness?

- How do you determine what R-F-I-D really means for your company?
- Questions to answer in order to determine how the mandate will affect your business:
  - Which products are affected by the mandate?
  - How many boxes of products do you send on an annual basis to the mandated locations?
  - To what extent should you employ RFID in your company?
  - What is the cost of implementing RFID?



# What You Really Need to Know

- What an RFID tag is and how it works
- What the DoD tag requirements are
- How the mandate will affect your business
- How many tags will you need on an annual basis
- Cost of procuring tags or a system to produce the number of tags that will satisfy your needs
- Implementing RFID for a small business is no more cumbersome than a bar-coding system

# Overview of Passive RFID

## ■ Who-

- Passive RFID is being deployed at Wal-Mart, Target, Albertsons, and the Department of Defense. Most new technology research and development effort is focusing on passive technologies.

## ■ What:

- Essentially, an enhanced bar code. Passive tags are 'inert' chips that gather power from radio waves. The chip harvests the energy in radio waves to generate enough power to transmit a very weak (aka backscatter) signal to a nearby RF radio receiver that collects the chip identification information.

## ■ Today's usage:

- Passive RFID is most appropriately used as an enhancement to bar coding. By tagging products with passive RFID tags you can monitor product as it moves through your organization.

# Are Your Products Mandated?

<b>Govt. Commodity</b>	<b>Nomenclature/Detailed Description of Commodity</b>
Class 1 - Packaged Operational Rations and Packaged Food	Nonperishable goods, combat rations, refrigerated and non-refrigerated goods, water
Class 2- Clothing, Individual Equipment, Tools and Administrative Supplies	Clothing, Individual equipment, tentage, organizational tool sets and kits, hand tools, and administrative and housekeeping supplies and equipment
Class 6- Personal Demand Items	Snack foods, beverages, cigarettes, soap, toothpaste, writing materiel, cameras, batteries and other nonmilitary sale items.
Class 9- Repair Parts and Components	Repair parts and components to include kits, assemblies and subassemblies (repairable or non-reparable) which are required for maintenance support of all equipment, including weapons systems.

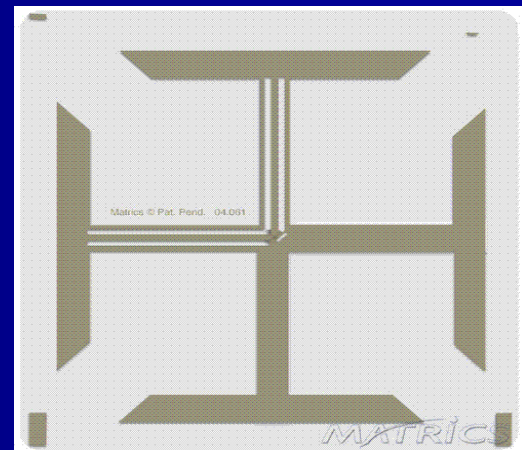


# Are Your Products Slated for Mandate?

<b>Government Commodity Implementation</b>	<b>Nomenclature/ Detailed Description of Commodity</b>
Class 1 (Phase 2)- Subsistence and Gratuitous Health and Comfort Items	Food items, subsistence, whole or fresh fruit, B rations (shelf stable rations), UGR's, POR/MRE's (Packaged Operation Rations),
Class 3 - Packaged Petroleum, Lubricants, Oils, Preservatives, Chemicals and Additives	Petroleum fuels, lubricants, hydraulic and insulating oils, preservatives, liquid and gas, bulk chemical products, coolants, de-icer and antifreeze compounds, components and additives of petroleum and chemical products and coal
Class 3P	Preservatives, chemicals, additives
Class 4- Construction and Barrier Equipment	Construction materiel including installed equipment and all fortification and barrier materiel
Class 5- Ammunition of All Types	Ammunition of all types (including chemical, radiological and special weapons), bombs, explosives, mines, fuses, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items.
Class 7- Major End Items	Major end items such as launchers, tanks, mobile machine shops and vehicles
Class 8-Medical and Pharmaceutical Material	Medical and pharmaceutical materiel, including repair parts peculiar to medical equipment

# What Do You Really Need to Implement RFID?

- Is it necessary to purchase consulting services, hardware, software, or a complete integrated RFID system?
- Finding the right answer is this SIMPLE-
  - What is the volume of orders sent to the affected shipping locations on an annual basis from each CAGE/Shipping Location?



# How Do We Justify Deploying RFID?

- The ONLY way to implement RFID and justify doing business with DoD is to find an affordable solution to the mandate.



# A Simple Solution From A Simple Company

- **Solution #1: Pre-Programmed DoD RFID Tags:**
  - Recommended for businesses shipping under 5,000 cases of product (shipping containers) to DoD annually. Great solution for contractors that only need passive RFID requirements.
- **Benefits:**
  - **Pre-programmed tags are simple:** Just peel label, place label on a shipping container, add the label number to your advanced shipping notice and you are DONE!
  - **Guaranteed Solution:** Pre-programmed tags are guaranteed DoD compatible through December 2006.
  - **No software or hardware systems to implement:** Use your existing barcode scanner, to scan the RFID label or read the RFID number off the label in order to hand-type the number into DoD's advanced shipping notice system.

# Other Options For Small Businesses

- **Solution#2: DoD-On-Demand Printing Solution (DoDoD):**
  - Recommended for businesses shipping over 5,000 cases of product (shipping containers) to DoD each year, or suppliers that have many CAGE codes.
- **Benefits:**
  - **Cost efficient:** By printing your own labels, you can negotiate bulk label pricing and lower your tag costs to gain a competitive pricing edge. You can also more readily use the label for your EPC compliance customers.
  - **No changes to your existing systems:** Simply plug in printer, load labels, enter CAGE code and print.
  - **Electronically import RFID codes:** Skip the barcode capture step and import RFID codes directly to your advanced shipping notice
  - **Installation, Training and Support:** Generally, installation, training and technical support are included in set up pricing

# Other Options For Small Businesses

- **Solution #3: DoD Logistics Support and Full RFID Systems Integration**

- For the next steps in RFID, a custom integrated RFID solution can be developed.

- **Benefits:**

- **Increase Ship Speed:** Fewer pick errors due to RFID automatically identifying the correct product mixes, no 'staging areas': RFID pallets can self-manifest their loads to an advanced shipping notice, and dynamic, data-driven pick lists on the forklift help you increase your shipment speed and increase shipment accuracy.
- **Reduced non-compliance fees:** The most common non-compliance fees occur due to inaccurate shipments. RFID can save an estimated 3% per year of revenue by reducing inaccurate shipments and non-compliance.
- **Automated inventory:** RFID increases the efficiency and optimization of a seamless Kanban inventory and production manufacturing systems by constantly monitoring inventory levels and acting on thresholds.

# RFID Requirements and Benefits

- The US Department of Defense published its final policy guidelines for the use of Radio Frequency Identification (RFID) tags for the shipment of products within its supply chain
- RFID tags became mandatory in DoD contracts issues as of Oct. 1, 2004, for delivery of material on or after Jan. 1, 2005.
- RFID tags on pallets and shipping containers help track thousands of shipments to America's war fighters. The amount of food, clothing, medical supplies, repair parts and construction and equipment items for over 100,000 soldiers in Iraq is tremendous. Since the use of RFID, bottlenecks of supplies moving into IRAQ have been eliminated.
- For more information on DoD RFID policy, visit [www.dodrfid.org](http://www.dodrfid.org)



# Why Do We Need To Comply?

- By expediting the implementation of this technology throughout DLA's (Defense Logistics Agency) system, DLA greatly enhances accuracy and visibility of materiel in their supply chain. DoD has informed their suppliers that an enhanced and streamlined supply tracking system utilizing RFID has and will continue to enhance war efforts from supply to delivery on the battlefield.
  - Support Our War Fighters
  - Freedom
  - Liberty
  - Justice

