RFID Technology

Simplifies Asset

Management

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Faced with intense emphasis on profitability, the need to comply with new governmental accounting rules, the opportunity to obtain 2009 American Recovery and Reinvestment Act stimulus money for systems to manage fixed assets, companies are recognizing the critical need for real-time, effective asset management solutions to help them run leaner and smarter.

Organizations, challenged with running large IT infrastructures with limited resources, are becoming aware of technologies such as radio frequency identification (RFID) and their capability to ensure asset optimization and enhance profitability.

Many companies, as well as federal, state and local governments are turning to technology to handle the extra workload because it enables them to track and locate valuable assets, which are being lost or stolen at an alarming rate, without the need for additional labor.

Advantages of RFID

Consider the hundreds of thousands of desktop and laptop computer units throughout offices, classrooms and satellite locations through out the school and government systems, manufacturing and logistics facilities in the United States. Most computer equipment has a life cycle of three to five years and 20-30 percent of the total units are replaced annually. This cost is in the hundreds of millions of dollars and, if lost or stolen, can cost companies, the government and taxpayers millions of dollars.

Typically, when a new piece of equipment is deployed, the manufacturer's serial number is logged and a sequentially numbered bar code tag is attached to the computer and usually logged in via a hand written document book or keyed into an accounting system. The system is then audited by an internal team or external company, which locates and updates the system on a quarterly or annual basis. Once the audit has been completed, a printed discrepancy report provides the serial number and description of the item that has not been located. The problem with this "manual"

or even "barcoded" systems is that the process relies on human intervention and provides many opportunities for logging or key entry errors. Studies have shown that 1 in 500 keystrokes can lead to an error and since a direct line of sight is required to scan a barcode, it is only effective when the asset can be physically located. Given the monetary impact, the human error factor is not an acceptable solution.

In most situations, manual audits become "search and destroy" missions. Teams of auditors are setup with auditing books and they are sent out to log or scan each and every asset that has been logged. If the assets have been tagged or logged correctly initially, this usually captures only about 80 percent of the items. Assets that maybe in a closet, drawer, packed in boxes or have simply been pilfered are not found and are written off the books and the system takes the loss and the dollar impact.

RFID is a seamless wireless environment that allows for non-contact identification reading that is similar to barcodes, but offers a more extensive list of benefits than current barcode systems. Although barcode systems are still workable, effective processes must be put in place in order for them to be successful. In recent installations companies have bypassed manual or barcode deployments and opted for RFID since the cost to deploy is not much more than traditional barcode applications and in some cases there is no additional cost to deploy the system.

RFID is comprised of three main components: an antenna or coil, a transceiver with decoder and a transponder (could be a handheld), or radio frequency (RF) tag, which is electronically programmed with information suited to your specific needs. The RF tag allows for additional specific information to be added and information to be stored about the tagged item rather than a traditional barcode that can only reference a general item description. This enables companies to track carton or pallet level data, track assets, vehicles, manage tractor trailer/containers and control inventory as well as personnel. The other great benefit is that RFID software and configured hardware can read a multiple number of tags instantaneously instead of the traditional

one-scan-at-a-time that is currently provided by traditional barcodes and no line-of-sight is required.

RFID plan for success

Most RFID systems in the industry have focused on supply chain or large scale warehouses or manufacturing. While this approach is great and has saved millions in loss of goods as well as provided visibility to the goods that are in supply chain, there is a much larger need to track and locate valuable assets.

In order to be successful at tagging, logging and actually utilizing RFID effectively, it is imperative to use a five-step plan.

Step I: It is essential to use a numbering algorithm that makes sense and applies to an organization's local or national system (i.e. state, county, asset number, serial number, manufacturer's code and date issued). This not only helps identify the asset down to the serial number, but it also allows for warranty and repair contracts to be supported and maintained.

Step II: Multiple types of RFID tags must be tested to ensure that one selected work best on the specific assets. The antenna must be compatible with the outer or inner components (i.e. metal, magnetic or detuning materials or form factors). Although many tags "will work" for the assets they are affixed to, it does not mean that they are the best tags for the job. In some cases, the proper adhesive needs to be tested to ensure longevity and some tags can be secured via screws, which eliminate the need for an adhesive backing. Location and form factor of the tag will drive the final tag selection. *

Step III: Consider if the application uses LF, HF or UHF for the tag and RFID frequency. Many countries require specific frequencies and regulations must be followed to ensure that the equipment is compatible in the countries where the tagged assets will

be used.

Step IV: It is essential to select a company that can provide a turnkey service. Since there are many elements to the implementation of RFID, working with a provider that can deliver a complete solution and offers full post installation support is critical. It is also important to choose a company with an established reputation for successful RFID solutions and the ability to support hardware, software, and tags that will be phased out will be very important. Failure to choose a supplier wisely has forced many organizations to implement an entirely new solution when their supplier goes out of business.

Step V: It is important to verify that a supplier's products come with a warranty and have the system tested before making a purchase. A live pilot test is worth thousands in savings to ensure the system works for the specific application.

Adaptability

While smaller organizations can benefit from a standalone application of RFID, they can also expand their use of the technology incrementally as their

requirements change. The optimal implementation is an enterprise side solution, which has completely integrated hardware and software solution-interfaced to host or ERP systems. For smaller to mid-size organizations there are software packages that can run standalone and no additional software is needed.

By replacing antiquated methods of tracking assets and managing depreciation with RFID, organizations gain the adaptability to respond to tax law changes and more importantly to eliminate time-consuming, labor intensive and inaccurate asset management systems.

Working with a supplier offering a complete RFID solution gives companies the opportunity to implement a cost-effective solution that will assure them that their assets,

from in-house equipment and inventory, to order receiving and shipping, are being managed with 100 percent accuracy.

For More Information Contact:

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