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Is High-Value Asset Tracking Right for You?

How to Partner With the Right Solution Provider for RFID Success



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Is High-Value Asset Tracking Right for You?

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The global RFID market is estimated to **grow at a CAGR of 7.6%** during the period of 2017-2023. Increasing demand for manufactured items to be pre-tagged, as well as the use of RFID to locate high-value assets quickly, factor into driving the growth of the market.

But there's more to implementing RFID than may be apparent at first glance. If not implemented correctly, RFID can add friction and become costly. For example, metals and liquids can cause havoc with RFID that's not properly engineered. Reader and tag frequencies can collide. And if RFID tags can't stand up to your environment, they can fade or fall off.

RFID is not a plug-and-play solution, but should be tailored to your industry and the unique needs of your business. The key to successful RFID implementation is finding a solution that doesn't come packaged with hidden costs and unnecessary complexity.

Is RFID Right for Me?

Getting to the right solution is a process. Start by answering these key questions:



Does locating equipment and other assets take too much time?

When workers are constantly searching for necessary assets to do their jobs, they're not really working. Similarly, if shipments from suppliers tend to be left in the wrong places, time is spent hunting them down. RFID technology can have a huge impact on productivity, because it allows workers to locate items in real time.



Do industry regulations require tracking?

Manufacturers may be required to track assets, or raw materials in order to maintain compliance with industry standards.



Is risk mitigation important in your tracking solution?

RFID is helpful for keeping assets from walking out the door and keeping visitors out of secured areas. Alerts can warn you when a tagged item leaves its designated area. Visitor badges can include RFID technology to ensure visitors don't breach safety or security guidelines.



Is the value of the items being tracked greater than the cost per tag?

Asset tracking technology is ideal for tracking high-value items, but it's less than ideal when the tag is more valuable than the item being tracked. Before selecting a tracking solution, know the cost of the tag to ensure asset-tracking technology makes sense.



What kind of ROI can you expect?

Balance the overall cost of the technology with the economic weight of the problems to be solved. Overspending won't necessarily yield better results. Under spending may not solve the problem or create friction in other areas.

Are you set on using RFID technology? If so, why?

Tracking technology is always part of a larger system. Be sure that the technology you want meets the needs of your systems and processes. A solution that works for one organization or purpose may not be feasible for other situations. Base your decisions less on personal preferences and more on what will deliver the outcome you're looking for.

Why RFID?

The biggest benefit of RFID is capturing accurate, real-time information for better, more agile decision-making. Accuracy reduces costly shipping errors, which increases profit, and also improves customer satisfaction. Reducing or eliminating chargebacks is a huge motivator for many RFID users.

REAL WORLD EXAMPLE

RFID can improve inventory accuracy **up to 95 percent or better**. For example, one organization tracks more than 10,000 laptops. Implementing RFID technology created real-time visibility into the last known movement of a laptop, which increased inventory accuracy and reduced the time to take inventory.

Decrease Operational Costs

A recent study by The Aberdeen Group shows that **93 percent of all organizations** believe that RFID reduces the cost of doing business. **A study by McKinsey reports that $2.7 trillion out of $5.1 trillion (64 percent)** of global manufacturing labor could be automated with technology that was available since 2015.

REAL WORLD EXAMPLE

For example, a shoe warehouse was receiving pre-tagged inventory with unusable RFID tags. They replaced their problem-prone portable RFID readers to increase accuracy and reduce labor costs, significantly increasing efficiency.



Maximize Operational Efficiency

RFID minimizes time spent tracking assets physically, increasing product flow and handling speeds. RFID can also improve efficiency in equipment maintenance. A study by Vanson Bourne, a GE Digital company, reports that **70 percent of respondents** aren't fully aware of when their equipment is due for maintenance, upgrade or replacement. Visibility into asset maintenance needs can reduce downtime by getting ahead of unexpected equipment failures.

REAL WORLD EXAMPLE

For example, a manufacturing company needed to locate and perform safety inspections on fitting straps. Their RFID solution prevented safety straps from being taken from the tool room and left elsewhere, ensuring they could be quickly located for safety inspections, which saved significant time.

Selecting the Right Provider

RFID implementation is a complex process. Unfortunately, many RFID installations don't deliver on their promises. Expectations for gains in efficiency can easily be lost in poor design, incomplete integration or missed opportunities.

When choosing a solution provider, be sure they provide enough service up front to understand your needs and expectations, and help you discover hidden opportunities and efficiencies. The right provider will have an established process for discovery, system design, installation and deployment.





Discovery to Match a Solution to a Need

Before embarking on a complex RFID solution, your provider should spend quality time with your stakeholders to fully understand your business objectives and expectations for results. Your provider may perform testing to understand your baseline performance. **This may include read performance testing in your environment using best practices, and several discovery tests, such as:**

- Determining required mounting hardware configurations for readers, antennas, brackets, enclosures and light bars.
- Determining AC power availability and requirements for added readers, sensors, light bars, printers and handheld terminal stations.
- Determining host connectivity availability and requirements.
- Designing an RFID pilot by selecting feasible use cases most likely to deliver desired results.
- Selecting tags appropriate to your applications and make recommendations to optimize read performance and other factors critical to success.

The discovery process should end with a written report detailing:

- Project feasibility.
- Recommended process, read point locations and tags.
- A bill of material recommendations for all required hardware, software, RFID tags and services, including the number of readers and antennas, antenna cable lengths, and the proposed locations and estimates for an RFID pilot.

Pilot for Proof of Concept

Before investing in an end-to-end solution, it's best to test the proposed program with a pilot (proof of concept). Not only will the pilot validate feasibility and results, it can help optimize the design and configuration for success.

The pilot usually targets one facility or plant with a pre-defined number of read points. A subset of the proposed solution is set up in a controlled setting within the customer's environment.

System Deployment

With a successful pilot completed and optimizations in place, the new RFID system is ready for full deployment. The provider will install and configure the solution, including software components. The system is then tested to ensure it complies with the design recommendations.

Deployment also includes:

- Unpacking RFID printers, readers, antennas, cables and applicators.
- Mounting RFID hardware to mounting platforms and brackets.
- Routing and securing of the antenna, power and data connectivity.

Your provider should also:

- Assist in configuring RFID hardware and verifying the reader and antennas are operating correctly with the host software.
- Work with you to confirm that your application is communicating to the RFID reader.
- Document RFID hardware setup and configuration in an "as built" document.



Go Live and Post-Installation Support

Teething pains are normal for a new installation, so your provider should have an engineer designated to delivering on-site or remote support as the system goes live. The engineer should be on site for a predetermined number of days to help identify and resolve problems in the early stages of operation. This level of support mitigates risk associated with installing a new system by providing the necessary expertise to ensure the experience is positive.

Training

Finally, your provider should train your system administrators in the new system, and train key employees so they can train your users. The "train the trainer" approach is effective to ensure that every employee who needs training gets it.

Training can be delivered throughout the pilot and deployment phases, and should be followed up with final, "as built" documentation. Training and documentation should be tailored to your needs and implementation.

Conclusion

RFID can make a world of difference in saving time and money while meeting internal and customer expectations for accuracy and timely data. But because industry experience has shown that not every RFID installation meets expectations, it's imperative that organizations interested in the benefits of RFID do their due diligence. Organizations must be sure they are not chasing a new shiny object but embarking on real efficiency and cost savings. To get the best ROI from your system, work with a reputable provider, whether it's with RFID or another solution.

Let Peak-Ryzex help you discover RFID and whether RFID makes business sense for your organization.

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