

# AVOIDING THE EXPENSE OF **RFID ASSET TRACKING** INFRASTRUCTURES



Going Beyond The Mark!

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Imagine the immense challenge involved in tracking a diverse range of parts, tooling, equipment, work order process, and more throughout a several-hundred-thousand-square-foot facility. Now imagine a similar challenge focused on healthcare. Consider a large hospital working hard to maintain real-time locations and inventory for important medical equipment like wheelchairs, gurneys, pumps, ventilators, and more on a continual basis. Without the assistance today's modern technology can offer for these challenges, it is easy to understand how substantial the lost labor time and overall productivity impact any business. No matter the industry, these challenges remain similar.

Many businesses may think that the cost of deploying a smart RFID solution exceeds

their budget capability. However, when the true cost of lost labor time spent searching for missing parts and tools or extended order turnaround times is evaluated, many professionals quickly see the profit-driving benefits of RFID asset tracking. Our experts have learned that evaluating the cost of bad data is just as important as evaluating the cost of implementing various solutions.

Past barriers to RFID implementation were often focused on the extensive costs surrounding the expensive infrastructure required. However, in 2021, technological innovations have drastically improved the infrastructure requirements for most use cases. Today, it is possible to establish a large-scale RFID solution without hiring electricians to hardwire a range of gateways, readers, and the like. In fact, many

## THE CHALLENGE

modern RFID gateways, readers, and more possess the ability to gain power using Power over Ethernet (PoE) or WiFi. Some even have the capability for connectivity using Bluetooth to WiFi.

In 2021, much of the commonly associated RFID implementation costs are centered around the expense of middleware solutions aimed at providing time of flight and/or triangulation for tracked assets in real time. Modern middleware costs may run in excess of \$100,000.00 or more, annually by subscription. However, today's enhanced V-Tag™ RFID technology provides an affordable and viable solution that bypasses the expensive infrastructure requirements of the past and eliminates the need for costly middleware solutions today.







V-Tag™ RFID offers an affordable and simple solution for asset tracking while offering a diverse range of RFID tag types, sizes, and capabilities. V-Tag RFID tags “talk” to each other by creating an ad hoc mesh network that relays information, thus eliminating the need for building complex, costly infrastructures. In some applications, this solution may require only one “gateway reader” which can be installed simply with industrial-grade Velcro. However, V-Tag RFID is easily scalable and accommodates a mix of tag technologies, including fixed RFID tags, active RFID tags, and Gateways, for even larger-scale needs at an affordable price point.

**Gary Moe, President & CEO, at ID Integration, Inc. shares that, "With an entire mesh network, you can actually track items up to a half mile or more in some instances."**

Imagine an inexpensive and flexible RFID tracking solution that goes far beyond warehouse or facility walls! It is now even possible to take RFID long-range with GPS RFID technology.

Coupled with AssetWorx! software, a V-Tag gateway unit relays asset location information to a central database. V-Tags™ send updates every hour to a computer, tablet or smartphone. The locations of

each tag appear on custom software maps of your facility, so that you can view the location of each asset in real-time within one hour. Move your assets, and the facility map refreshes to show the updated locations. Easily change your plant floor plan without the concern of misplacing parts and equipment. This innovative RFID active tag technology simplifies verification of shipment contents that are received and shipped out.

Monitor the status of your assets, too. V-Tags possess a G-Force sensor that can be set to notify a customer if an asset has been dropped.. These unique tags also include an alarm to alert on battery levels and asset movement. View these alarms on the software map of your facility. Create graphs and

# WITH **RFID TECHNOLOGY** THERE ARE FEWER MISREADS AND BETTER ACCURACY

reports of movement and view current and past sensor reports.

V-Tags™ with AssetWorx! technology saves time and money on labor during audits—No time is wasted hunting for critical tools and assets.

Search for assets in open fields using the V-Tag™ Tracker. Audits are not only easy—They are virtually free of errors.

The V-Tag™ System, with AssetWorx! software, facilitates WIP (Work-In-Process) tracking for manufacturing and MRO applications. This opens the door to numerous business applications that can benefit from the money-saving advantages of this new technology.

Which Business Sectors Can Take Advantage of Cutting-Edge Active Tag RFID Asset Tracking?

RFID location tracking is a useful technology for a wide range of industries. Today, there are many technologies to choose from and therefore working with an experienced systems integrator may provide the best pathway for implementation, regardless of technology manufacturer alliances.

The temperature sensor measuring capabilities cause V-Tag™ tags to be useful in monitoring pipeline and environmental changes. They are



used for tracking in construction, gas, and oil businesses. The medical community uses active tags to locate hospital and lab equipment. They are also applicable for rescue and fire operations because the tags can be attached to either a fixed or moving object, including people (useful for tracking patient location/status, equipment inventory, etc.).

## COMMON RFID USE CASES

**Analyze historical manufacturing data**

**ATA Spec 2000 RFID for Aerospace**

**Automated inventory management of supplies**

**Automated Work Order Process & Insight**

**Expiring chemicals management**

**IoT & cloud RFID ease of use/access**

**IT asset tracking for audits**

**Monitor items moving through supply chain**

**Real-time data for manufacturing insight**

**Tool tracking**

**Tracking assets outdoors**

**Hospital equipment tracking**

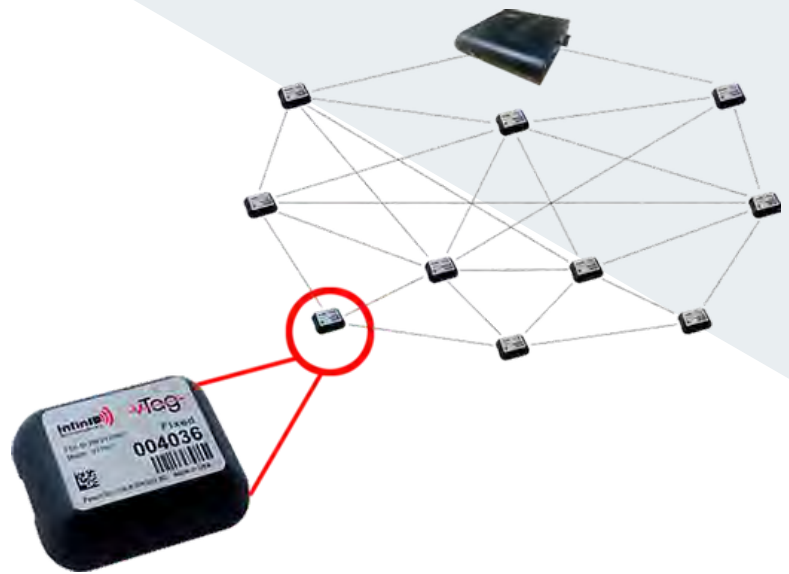




## MAINTENANCE, REPAIR & OVERHAUL FACILITY

A large-scale MRO plant needed to eliminate the misplacement of high value parts, tooling, and orders throughout their hundred-thousand-square-foot facility. The overall goal was to reduce lost time searching, excessive parts inventory, and delayed turnaround times. Using a combination of V-Tag hard-wired Gateways, RFID Asset Tags, RFID Fixed Tags, and AssetWorx software, our team was able to deliver on all fronts. An unexpected bonus was the ability for the plant to rearrange its layout quickly for special projects - without needing to restructure its entire setup.

## RFID CASE STUDIES



### RFID APPLICATION BENEFITS:

- Real-time part tracking and visibility across R&O stations
- Lower inventory through improved schedule confidence
- High labor productivity and fast turnaround time through automated inventory counts
- Eliminated "factory-wide lost part/tool search" events

### EXAMPLE SOFTWARE MAP SHOWING LOCATION OF RFID TAGGED ITEMS:

**GREEN = SEEN**

*(Within Hour)*

**ORANGE = MOVING**

**RED = NOT SEEN**

*(Within Hour)*



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## LARGE HOSPITAL NETWORK

A large network of hospitals needed to more quickly locate important equipment and assets like wheelchairs, gurneys, pumps, ventilators, and more. Their solution needed to be affordable and easy to deploy throughout each location.

Using the V-Tag RFID technology, their goal was to achieve tracking of critical equipment in real-time as this equipment moved throughout the hospital in order to reduce wait times, avoid traffic jams, and locate patients. The insights gained increased their internal team's efficiency by eliminating time wasted searching for necessary equipment.

The hospital also needed an RFID location tracking system that was easily scalable in the future and the V-Tag line fulfilled this requirement with ease.

### RFID APPLICATION BENEFITS:

- Improved the speed and accuracy of current procedures, providing an audit trail for any instances involving patients and staff.
- Reduced labor time of nurses and supportive staff spent searching for hospital equipment.
- Ensured error-free inventory audits with quick, precise location of devices, tools, and equipment, by viewing them on a real-time map of their healthcare facility using RFID location tracking.
- Now receive real-time alerts when items are moved,





# CONCLUSION: TAKING STEPS TO BEGIN SAVING MONEY USING RFID ASSET LOCATION

Start with a needs assessment, and then receive installation and training. The experts at ID Integration provide customized professional services. They work within your budget so that you begin realizing immediate savings in active RFID hardware, software, and labor. Contact ID Integration at (425) 438-2533 for a complimentary consultation and visit their website where you can find more helpful resources and white papers to help you along the journey.



## SOURCE LINKS:

“Leveraging IoT and Cloud Manufacturing to Revolutionize Asset Tracking & Audit Prep”:  
<https://id-integration.com/learn-how-to-leverage-iot-and-cloud-manufacturing-revolutionize-your-asset-tracking/>

“Discover the Internet of Things and How To Enter the Smart Factory Revolution”:  
<https://id-integration.com/applications/what-is-the-internet-of-things/>

“Using RFID To Improve Hospital Supply Chain Management & Patient Care”:  
<https://id-integration.com/rfid-for-healthcare/>

“How To Save Costs Using Good Data: The 1-10-100 Principle Explained for IUID Applications”:  
<https://id-integration.com/how-to-save-costs-using-good-data-the-1-10-100-principle-explained-for-iuid-applications/>

“ID Integration And InfinID Team Up to Provide Low-Cost Location Tracking System”,  
Scan Data Report, Vol. 38, No. 7, April 17, 2015, Edited by Rick Morgan:  
<http://www.id-integration.com/rfid-asset-tracking>

“ID Integration, InfinID Offer Active RFID System for Aerospace and Government”, by  
Claire Swedberg, RFID Journal, April 13, 2015:  
<http://www.id-integration.com/images/rfid-journal-article-ID-Integration-Offers-Active-RFID.pdf>

ID Integration V-Tag Active RFID Solution Video:  
<https://www.youtube.com/watch?t=3&v=SMeSMjlrH74>

“Saving Costs With the V-Tag™ Active RFID Solution—No Antennas Necessary!”:  
<http://www.id-integration.com/v-tag-active-rfid-asset-tracking.htm>

“Transform Your Production Efficiency with V-Tag™ Asset Tracking”: <http://www.id-integration.com/rfid-asset-tracking>