STANLEY
Healthcare

IMPINJ™

Application Note:

Asset Management with RAIN RFID

Incorporate Passive RFID to Realize Even
More Value from Your RTLS Platform

Challenges

RTLS-enabled visibility and analytics offer a powerful solution for managing assets. However, every asset management use case may not require or support the use of an active RFID tag. Assets might be too small to be tracked with an active tag, such as telemetry packs or handheld Dopplers. In some cases, such as IT or research equipment, assets might not be sufficiently mobile to merit the use of active tags. Hospital administrators and clinicians need a better way to efficiently locate these types of assets, capture and analyze valuable inventory data, and generate alerts when assets pass through potential loss areas.

Solution

STANLEY Healthcare has an answer. Through our partnership with Impinj™, we have incorporated RAIN RFID technology into MobileView®, our industry-leading visibility and analytics platform. The expanded Asset Management solution enables hospitals to tap into the size and cost advantages of passive tags through their enterprise platform—with the same alerts, maps and reports available with active tags.

Seamlessly locate RAIN RFID-tagged assets across the enterprise using RAIN RFID readers or gateways at strategic locations or chokepoints. The readers and gateways provide location data for the assets—data that enables staff to find assets, account for valuable capital inventory, manage inventories of equipment, and receive real-time alerts about potential loss events.

STANLEY Healthcare Asset Management solution with RAIN RFID technology supports the following use cases:

- **Shrinkage Control**

- **PAR Level Management and Order Fulfillment**

- **Inventory Location and Accountability**

Benefits

- Easily track small, mobile equipment in real time

- Improve asset utilization and purchase management, resulting in reduced capital expenditures and rental costs

- Increase staff efficiency by automating equipment searches

- Reduce theft and loss through real-time alerting

- Automate PAR levels to drive efficiency and remove gaps in availability

- Improve operational decision making and material management workflow optimization through advanced visual analytics

Solution Components

Deploy the RAIN RFID Asset Management solution rapidly and with a low total cost of ownership. Solution components include:

- **STANLEY Healthcare MobileView Visibility and Analytics Platform**

- **Impinj ItemSense Software**

- **RAIN RFID Tags**

- **Impinj RAIN RFID Readers and Gateways**

SHRINKAGE CONTROL

Telemetry packs and other small medical devices can be accidentally "lost" in trash or linen carts as patient rooms are cleaned. With Impinj RAIN RFID readers or gateways installed at the bottom of chutes or collection points, MobileView alerts staff when a tagged asset enters one of these areas—enabling real-time reaction to shrinkage events. What's more, the solution's RAIN RFID sorting station helps staff identify which individual bag of trash or linen contains the asset—reducing their exposure to infectious waste.
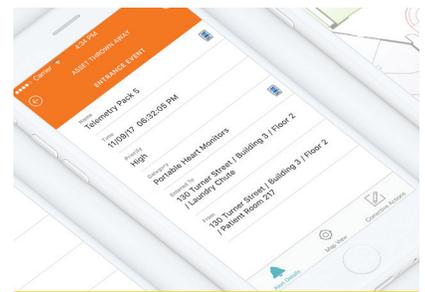
PAR LEVEL MANAGEMENT AND ORDER FULFILLMENT

The RAIN RFID-enabled solution provides inventory management of assets using PAR level processes or order fulfillment. The solution reads assets placed on shelves in clean or soiled utility rooms, providing visibility into which assets are placed into or removed from inventory locations. When combined with powerful visual analytics dashboards that quickly show PAR level status, hospital staff gain access to operational insights for immediate action—along with historical information for trend analysis.

INVENTORY LOCATION AND ACCOUNTABILITY

By retaining the last known location of the tagged assets in MobileView, the RAIN RFID-enabled solution provides inventory location information for assets across the facility. This perpetual inventory not only provides location data to help staff locate assets but creates an efficient method to account for equipment inventories.

> *With RAIN RFID, STANLEY Healthcare is providing an alternative technology that complements our Wi-Fi RTLS solution. RAIN RFID is the ideal passive technological solution for tagging certain assets in the healthcare environment.*

Real-time alerts are sent to PCs and mobile devices when assets pass through egress, change in status or go above/below PAR level

RAIN RFID: THE GOLDILOCKS OF PASSIVE TECHNOLOGY

RAIN—which stands for **RA**dio frequency **IdeN**tification—is Ultra High Frequency (UHF), Gen 2 passive. It stands apart from other types of passive available on the market, such as Ultra Wide Band (UWB) or High Frequency (HF). RAIN RFID's performance characteristics have made it the most pervasive form of passive RFID in the market today. HF is best used for near-field applications, such as consumable inventory tracking on shelves. UWB is best used when extreme location accuracy is required, but because it demands a large quantity of readers, it is expensive to deploy. RAIN RFID, on the other hand, is "just right." It is very flexible thanks to reader power that can be adjusted to provide different read distances and antenna design that can focus read fields to afford different field shapes and coverage. In addition, RAIN RFID tags are inexpensive and available in any size or shape—making them ideal for tracking small, difficult-to-tag assets.

How It Works

RAIN RFID-tagged assets are read as they pass into the field of Impinj readers. When read, tag data is sent to the STANLEY Healthcare MobileView platform. That includes location information for the tagged asset, similar to how RTLS tags communicate via Wi-Fi. MobileView can be configured to provide location data about the assets, or to alert staff when assets enter zones or chokepoints prone to equipment loss. In addition, asset inventory can be managed using PAR level logic or through an order fulfillment use case.

With RAIN RFID, STANLEY Healthcare is providing an alternative technology that complements our Wi-Fi RTLS solution. RAIN RFID is the ideal passive technology solution for tagging certain assets in the healthcare environment. A number of characteristics make it the Goldilocks of passive technologies.

Analytics

Transforming complex data into easy-to-understand visual information, STANLEY Healthcare's solution provides powerful visual analytics to drive better operational decision making, identify areas for process improvement and apply predictive analytics to anticipate future asset needs. MobileView Analytics delivers visibility to inventory quantity and location, PAR levels and equipment process cycle status. Use it to:

- **Explore asset utilization**: see real-time distribution enterprise-wide to understand the effectiveness of current asset allocation and enable more intelligent decisions moving forward

MobileView Map View provides location-based context for assets

MobileView List View provides a single, filterable list of all assets (e.g., show me all telemetry packs)

- **Investigate PAR levels**: understand how well current PAR level practices are performing, identify areas for improvement and enable materials management to manage by exception, and provide clinicians with seamless, behind-the-scenes provisioning

- **Analyze cyclical asset flow** in context and know where inventory is in the equipment process at all times (e.g., in-use, soiled, cleaned, SPD, in transit or clean utility)

- **Pinpoint process bottlenecks**, understand staff behavior and identify potential risks

Additionally, the solution provides a standard reporting tool for inventory management and operational and compliance needs of RAIN-tagged assets. On-demand and scheduled reports include asset management, inventory summary, asset utilization, PAR level status, asset/event history and system reports. Reports feature graphical and tabular views that can be printed or exported to Microsoft Excel, PDF or HTML formats, and include electronic signature capabilities.

MobileView Analytics helps to reduce capital and operational costs with better insights into inventory quality and PAR levels

About STANLEY Healthcare

STANLEY Healthcare provides over 5,000 acute care hospitals and 12,000 long-term care organizations with enterprise solutions that create a safe, secure and efficient healthcare experience across life's stages. The STANLEY Healthcare solution set enables customers to achieve organizational excellence and superior care in critical areas: Patient/Resident Safety, Security & Protection, Environmental Monitoring, Clinical Operations & Workflow and Supply Chain & Asset Management. These solutions are complemented by STANLEY Healthcare's By Your Side™ Lifetime Customer Care commitment to ensure that every customer achieves success and realizes the full value of their investment, through consulting, training, implementation and integration services. STANLEY Healthcare is proud to be part of Stanley Black & Decker, Inc. For more information, visit www.stanleyhealthcare.com. Follow STANLEY Healthcare on Facebook, Twitter, LinkedIn and YouTube.

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