

HEALTHCARE ASSET MANAGEMENT APPLICATION NOTE

AeroScout's Hospital-wide Asset Management Visibility Solution Helps Hospitals Reduce Capital and Operational Costs, Improve Quality of Care and Achieve Regulatory Compliance

CHALLENGE

Hospital asset management is a constant challenge for materials managers, financial administrators, nurses and others:

- Hundreds of hours per year can be spent inventorying and searching for equipment
- Up to 15% or more of all equipment may be lost or stolen in a given year
- Par level management (equipment levels per hospital area) and equipment sterilization processes are inefficient due to non-optimal workflow, equipment hoarding, lack of a real-time location and status for equipment and other issues
- High capital expenditures as equipment utilization rates are often below 40% and can be twice as high through optimal utilization
- Liability issues— difficulty in locating recalled equipment and equipment software not updated on time
- Unnecessary equipment rentals, and late returns of rentals
- Equipment wait times may delay patient procedures and reduce throughput
- JCAHO (Joint Commission on Accreditation of Healthcare Organizations) and SOX (Sarbanes-Oxley) regulations require accurate asset ownership counts

SOLUTION

AeroScout features an Asset Management solution as part of its industry leading healthcare visibility suite, which uses a ubiquitous, standard Wi-Fi infrastructure to deliver a wide variety of benefits throughout the hospital. The Asset Management solution includes Par Level Management, Order Management and Inventory Management.

AeroScout Active RFID tags are mounted to the hospital's mobile equipment (i.e., infusion pumps or wheelchairs) and the real-time location and status of the equipment is displayed on an imported map of the facility, through AeroScout's web-based MobileView software. The software may trigger alerts, based on user defined criteria, which may include e-mails, a pop-up window in MobileView, a page, a VOIP phone or badge alert, a text message or other forms of alerts, such as an alert integrated into a hospital's materials management system.

Par Level Management

Par level management requires that materials managers, nurses and other staff understand how many pieces of equipment are in each zone, floor or distribution area, in order to effectively and efficiently meet the equipment level requirements associated with each area. AeroScout's solution enables tracking, in real-time, when a piece of equipment enters or leaves an area, such as a soiled or clean utility room, or a centralized distribution area. The hospital users can set up automated alerts through AeroScout's MobileView software to inform staff when there is a shortage or surplus of equipment in an area.

The status (i.e., available, not available, etc.) of the equipment is tracked in the software to help managers understand utilization rates. The status can be obtained when a staff member

depresses the tag call button, it can change according to the asset's location (i.e., in a soiled or clean utility room), or the equipment's operational status may be obtained by integrating the tag's serial connector to the medical device allowing the tag to either retrieve information from the device or have the device send that information onto the tag (i.e. retrieving the operational status of an infusion pump in order to determine whether pump is in use or not). In addition, MobileView can aggregate status information on assets from other hospital information systems (i.e., if a bed or pump is in use or if it is a rental piece of equipment).



Order Management

Through the real-time tracking of assets, the equipment search and sterilization process is now simplified and the orders can be filled in an efficient manner as there is a clear understanding of the equipment location and status. Staff may also choose to use the AeroScout tag call button, which can be pressed to note a status or request a pick-up. Real-time reports and integration of the equipment location and status data into the existing order management system can further simplify order management workflow and facilitate effective “sweeps” and replacements.

Inventory Management

The inventory process can be completed by accessing current and historical equipment reports in MobileView. The report notes which pieces of equipment are in the hospital and provides the necessary detail associated with each piece of equipment. The report can be used to comply with SOX and JCAHO regulations. The accurate inventory management report is an effective tool to help managers assess capital expenditure and rental equipment needs. In addition, staff can be alerted, in real-time, when equipment is leaving a certain area in an unauthorized manner (i.e. if a certain group of assets must remain in a certain hospital building at all times).



The Asset Management solution includes many standard reports such as the Asset Current Location report, the Asset Location History report, and the Events History report (i.e., shortage, surplus, dwell, absence, entrance, exit and more). The solution also allows users to create customized reports. The reports can help staff understand and improve utilization rates, reduce rental equipment costs, perform real-time inventory counts throughout the entire hospital facility, reduce liability and achieve regulatory compliance. The reports can be exported to Adobe Acrobat, Microsoft Excel and XML or may be printed directly from MobileView. In addition the standard Web-based client, MobileView location and status data can be integrated into existing hospital information systems and even viewed on a PDA.

BENEFITS

- Improved asset utilization and purchase management resulting in reduced capital expenditures and rental costs
- Reduced labor costs related to searching for equipment and annual inventory management, as well as through an optimized sterilization process
- Theft and loss prevention through real-time, indoor and outdoor, device tracking and alert of equipment leaving desired areas
- Improved quality of care through additional time caregivers may spend with patients as opposed to spending searching or waiting for equipment
- Regulatory compliance, as JCAHO requires all equipment be inventoried and SOX requires inventory management for accurate financial statements
- Increased revenue via enhanced patient throughput as equipment wait times are significantly reduced
- Reduced TCO as the standard Wi-Fi solution leverages the hospital's existing wireless infrastructure
- Improved safety through successful recall management and timely software updates to equipment

Sample Cost Justification – 300 Bed Hospital

- Reducing equipment search time by 15" per piece can save over 4,500 hours per year
- Reducing rental costs by 50% can save \$100,000 per year
- Reducing lost or stolen equipment by 90% can save \$135,000 per year
- Automated inventory management can save 750 hrs./yr.
- Increasing equipment utilization from 40% to 50% can save \$400,000 per year in capital expenditures

AeroScout is the leading provider of Wi-Fi-based Active RFID solutions. For more information about our healthcare visibility suite of solutions, please call (650) 596-2994 or visit www.aeroscout.com.