AeroScout®

> ## Healthcare Asset Management
> ### Application Note

Hospital-wide Asset Management Solution Reduces Capital and Operational Costs, Improves Staff Efficiency and Increases Equipment Utilization

> ## Challenges

Hospital asset management is a constant challenge for materials managers, nurses, distribution and transport services:

- Hundreds of hours per year are spent inventorying and searching for equipment
- Up to 15% of all high-value equipment may be lost, stolen or misplaced in a given year
- Par level management (equipment par levels per nursing unit or hospital area) and equipment sterilization processes are inefficient due to sub-optimal workflow, equipment hoarding, and a lack of real-time location and status of equipment
- Low equipment utilization rates (often below 40%) result in excess purchasing and high capital expenditures
- Unnecessary equipment rentals and late returns of rentals significantly increase operational costs
- Waiting for ordered equipment may delay patient procedures and reduce patient throughput
- Liability issues arise from problems locating recalled equipment and from equipment software not being updated on time
- Regulations (e.g., SOX) require accurate accounting for asset inventory

Solution Highlights

- Leverages existing Wi-Fi network for hospital-wide visibility of equipment location, condition and status
- Displays hospital map views of specific assets or groups of assets from Web-based application and handheld devices
- Provides real-time equipment location integration to inventory and materials management systems
- Delivers sophisticated reporting tools for analysis of utilization rates, inventory, distribution and par levels

> ## Solution

Asset Management is part of AeroScout's industry leading Unified Asset Visibility Solutions for Healthcare, which uses a hospital's pervasive Wi-Fi network to deliver a broad set of applications hospital-wide. The solution automates the current manual processes that most hospitals have for managing their capital and rental equipment. The solution enables rapid deployment with the lowest total cost of ownership, does not require any dedicated network of readers and includes the following components:
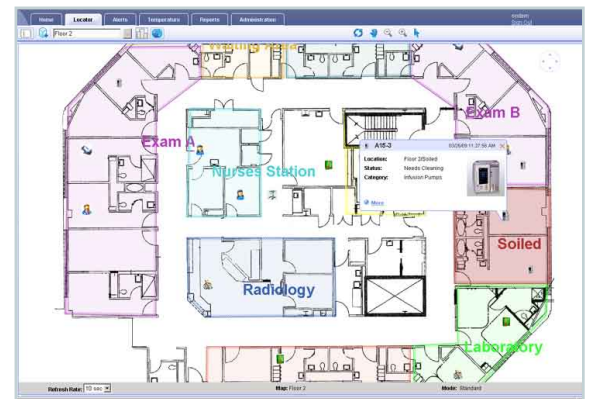
- AeroScout Wi-Fi Tags
- Hospital's Wi-Fi Infrastructure
- Location Engine
- AeroScout MobileView software

Mobile equipment (e.g., infusion pumps, defibrillators, portable X-Ray equipment, beds, wheelchairs) is tagged with AeroScout Wi-Fi Tags. The tags periodically (every few seconds or minutes) report their location over the Wi-Fi network. AeroScout offers mounting accessories and custom mounting solutions to suit a variety of types of equipment. The tag's battery is replaceable and lasts for several years. A location engine collects the tag signals that are received by all of the Wi-Fi access points that hear a tag when it transmits. This information is used to determine the location of the tag. The tag location data is transmitted to the AeroScout MobileView software.

AeroScout MobileView is a web-based application that enables staff to monitor and manage the location, status and condition of assets. MobileView is the front-end application for asset management which provides a graphical user interface, a rules/event engine to process incoming tag data, reporting tools and interface capabilities for alerting users via third party information systems or communication devices.

About AeroScout

AeroScout is the market leader in Unified Asset Visibility solutions. Customers improve operational efficiency using AeroScout products that leverage standard Wi-Fi networks to track and manage the location, condition and status of mobile assets and people. AeroScout's global customer base consists of leading hospital, manufacturing and logistics organizations, including many of the Fortune 500. The company invented the first Wi-Fi-based Active RFID tag, and today is widely recognized as leading the market in number of deployments and tags shipped. Headquartered in Redwood City, California, AeroScout has offices in Europe, the Middle East, Asia, Australia and Latin America.
For more information, please visit http://www.aeroscout.com.

The status (e.g., available, clean) and location of the equipment is tracked in MobileView to help managers understand utilization rates. The status can be obtained when a staff member presses the tag call button or according to the asset's location (e.g., in a soiled or clean utility room). The equipment's operational status may also be obtained by integrating the tag's serial connector to the medical device allowing the tag to retrieve information from the device – for example, the operational status of an infusion pump to determine whether the pump is in use or not. In addition, MobileView can aggregate status information on assets from other hospital information systems such as bed management or infusion pump management systems.

Par Level Management
Par Level Management improves materials distribution and purchasing, by automating how many pieces of equipment are in each zone, floor or utility room to effectively and efficiently meet the equipment requirements associated with each department. The solution enables tracking, in real-time, of when a piece of equipment enters or leaves an area, such as a soiled or clean utility room, or a centralized distribution area. Hospital users can set up automated alerts through MobileView to inform staff when there is a shortage or surplus of equipment in an area. This enables materials management to more accurately understand the current and future equipment needs of hospital staff.

Order Fulfillment
When equipment is requested by nursing and clinical staff, distribution services staff can run on-demand searches and are able to locate the nearest available asset. This enables them to rapidly fulfill orders and reduce wait times. 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
Inventory management can be automated by accessing a variety of reports in MobileView. Inventory reports enable staff to perform real-time inventory counts throughout the entire hospital facility. Utilization reports are an effective tool to help managers assess capital equipment purchasing requirements and allocation among hospital departments. In addition, staff can be alerted, in real-time, when equipment is leaving a certain area to prevent shrinkage and loss.

Rental Management
Tracking rental equipment throughout the hospital ensures that equipment is returned on time. Moreover, utilization analysis enables optimization of the balance between capital and rental equipment.

Benefits
- Improved asset utilization and purchase management resulting in reduced capital expenditures and rental costs
- Increased staff efficiency by automating equipment searches
- Theft and loss reduction through real-time asset tracking and alerting
- Improved quality of care and increased patient throughput due to improved equipment availability
- Reduced total cost of ownership (TCO) by leveraging the hospital's existing wireless infrastructure