



Healthcare Asset Tracking

Where is the nearest asset?

Do I have enough equipment in that department?

Where is my lost gear?

I need to service this list of devices, where are they?

*Asking these questions? You need **EV2** Asset Tracking!*

The Challenge

The problem of managing patient care assets is challenging healthcare professionals worldwide. Financial managers, operations administrators as well as primary medical providers all agree that keeping track of mobile assets year round, 24-hours a day is essential for organizational performance, patient care, regulatory compliance & legal exposure.

Today's, modern medium-sized, 200-bed facility typically has millions of dollars of owned or leased mission-critical equipment in service. In any corridor, patient care devices ranging from IV pumps, ventilators and x-ray machines to other mobile assets such as wheelchairs, stretchers and gurneys, are either moving from one place to another, or are parked along a wall waiting to go somewhere. Overloaded support personnel, nurses and even doctors, waste time searching and retrieving misplaced and overlooked patient care equipment. Maintenance staff also loses productivity by searching for specific items in need of repair or calibration. Typically, searches are random, unorganized and in some cases may adversely affect patient treatment.

Hundreds of thousands of dollars worth of equipment are unaccounted for each year, it simply gets misplaced, or stolen. Assets are often under-utilized or unutilized due to departmental hoarding. To compensate, many healthcare facilities have found it simpler to just over-procure.

With an **EV2** Asset Tracking Solution you can use active Radio Frequency Identification (RFID) technology to effectively manage and reduce your asset utilization challenges.

An **EV2** Asset Tracking Solution from TW Systems can help control your ongoing operational expenses plus reduce your yearly capital expenditures.

- Lowers acquisition costs
- Reduces lease expenses
- Trims asset shrinkage
- Increases asset utilization
- Boosts staff productivity
- Enhances work flow
- Reduces equipment hoarding
- Advances JCAHO maintenance & calibration compliance
- Cuts risk & litigation exposure



How EV2 Asset Tracking Solutions Work

EV2 Asset Tracking solutions consist of a comprehensive set of hardware, software and services customized accordingly to your particular mix of facilities, asset types, and legacy systems. Flexible and robust solutions designed to meet both your current and long-term needs.



The EV2 Asset Tag

The EV2 Asset Tracking Solution is based on the EV2 Asset Tracking tag. When deployed the tag is affixed to the medical devices you want to track.

Only 4 by 3cm (1.5 x 1.18 inches) in size, the EV2 Asset Tracking Tag is suitable for surface mounting on almost any mobile patient care asset without electrically interfering with its operation.



When attached to a medical delivery asset; the EV2 Asset Tag can also automatically transmit alerts and trigger alarm notifications for keeping personnel informed of deliberate or accidental tampering and/or removal.

Additionally, EV2 Tracking Tags emit periodic supervision messages so that a supervision alarm may be triggered should the EV2 system fail to hear from the asset.

Additionally, the tag's onboard magnetic low frequency (LF) Receiver adds exit point area detection so whenever the protected asset is physically near a critical exit/entrance covered by an EV2 reader an alert notification is generated.

The tag uses low power beacon type radio signals as well as safe, infra-red transmissions messages to transmit continuously asset identity and location data down to room-level accuracy to a network of EV2 ceiling/wall mounted readers that are placed at strategic points around the facility; such as key exits, entrances as well as transition points between departments.

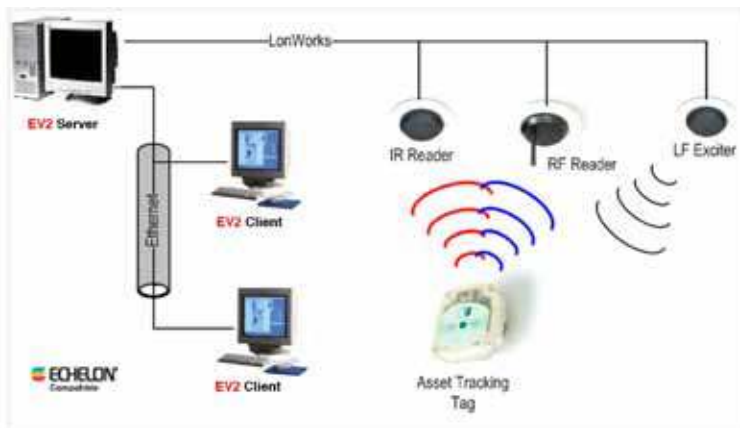
Asset Tag Features

Useful for Tracking:

Infusion pumps
Cardiac Monitors
Ventilators
Wheelchairs & Gurneys
Monitoring equipment

- ✓ Smallest Active Triple-technology RFID tag available
- ✓ Tough; water resistant casing
- ✓ Asset supervision monitoring
- ✓ Tamper/removal alerts
- ✓ Patient safe RF & IR technologies
- ✓ Exit point area alerts
- ✓ Mounts on virtually any device
- ✓ Field replaceable long-life battery
- ✓ CE and FCC approved

Flexible Network Infrastructure



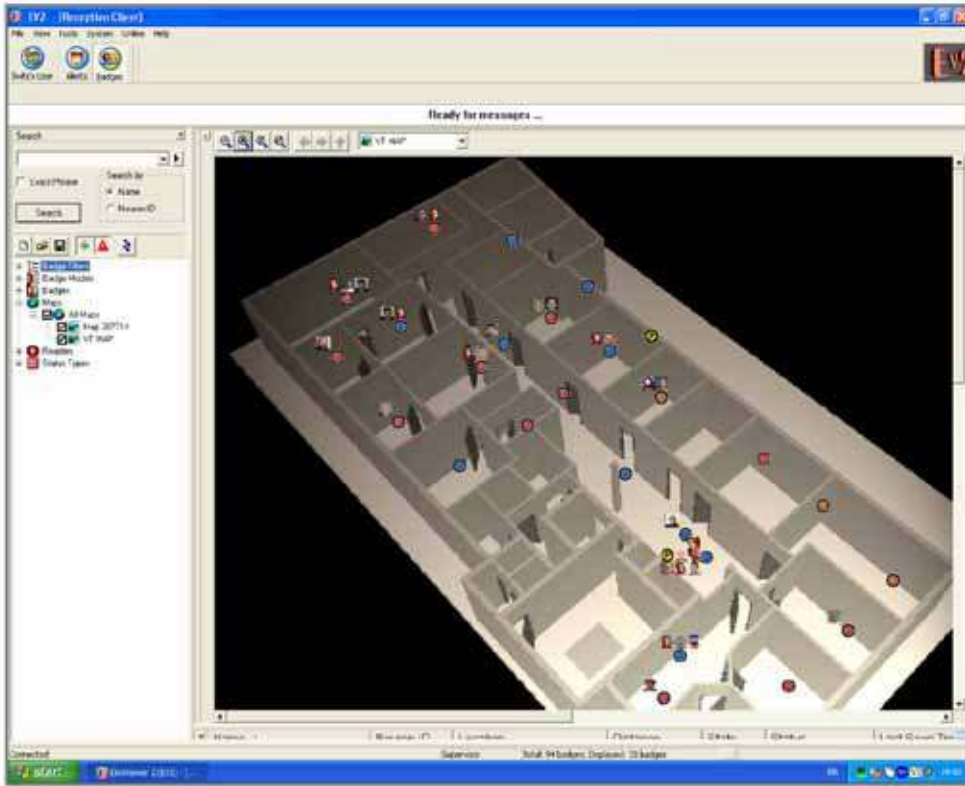
Upon receiving data from the tracking tags, the EV2 readers process and then feed the identification and tracking data over a commercially available Echelon LonWorks™ network to the EV2 server for processing, monitoring, database logging and alert notification distribution to desktop/laptop clients or mobile devices.

The EV2 network of IR/RF readers and exit point LF exciters can easily scale to support thousands of networked devices and 10s of thousands of asset tags. This scalability is achievable due to the distributed intelligence and routing capabilities available in LON networks. In addition, thousands of 3rd party sensors and actuators may be added to the network enabling limitless integration possibilities.

The EV2 tracking solution seamlessly integrates with other EV2 RFID security applications for monitoring and tracking personnel and patients as well as mobile assets. The system can be expanded to add active EV2 personnel tags, hands free access control, hands-free asset escorting, panic alarm and more. The same LON infrastructure of EV2 readers, LF exciters, servers, clients and software is used for both asset and personnel tags.

By initially implementing EV2 asset tracking and then adding risk mitigation and security functionality, medical facilities can realize a single unified approach for optimizing asset usage, ensuring patient and caregiver security and enhancing hands-free entrance/exit alerting. Add to this unified RFID platform strategy the ability to integrate with legacy enterprise management platforms (such as, patient care, workflow & staff scheduling, billing, asset maintenance, security and billing systems) makes single unified RFID platforms both technically and financially feasible for the majority of healthcare facilities.

Every **EV2** tracking solution is built upon field proven components; flexible robust infrastructure; and inclusive design, implementation and support services.



Rule-based Alerts

Setup, monitor & manage status, location & security rule based alerts and triggered alarms. Monitor all incoming alarms control response and monitor recovery status

Define automatic tasks that can trigger alarms, send commands to external equipment and deliver notifications to different people using email, system clients or mobile devices including mobile phones & PDAs.

Zone/Area History

Produce historical reports and trend information on asset movement and usage within or into or out of any area/zone for specified time periods.

Multilayered Monitoring

Supplies real-time awareness data about what is happening to your patient care assets, organized in one, easy-to-use, multi-layered graphical display.

Intuitive Search Tools

Mouse-driven searches deliver asset location data about any medical care device seen in the graphical display.

Searches may be filtered, enabling you to focus on one asset type or a specific location.

Flexible Location Hierarchy

EV2 asset tracking solutions lets you define your location hierarchy as you see fit.

EV2's, scalable, distributed system architecture supports campuses type facilities; made up of multiple buildings, wings, floors and virtually any other user defined zones.

Simple Backend Integration

Extensible; customized software for integrating with practically any backend management, ERP, workflow, asset maintenance security or billing system. You can also easily develop enterprise-wide location based services on **EV2's** precise real-time, room location data.

Solutions with Real ROI

"Many adopters have reported a rapid return on investment (ROI) of 12 to 18 months." IDTechEx - Oct 26, 2006.



Simplified Implementation

To help identify your needs, plan your solution and implement on schedule. TW professionals along with our Business Partners will work closely with you and your staff every step of the way.

Together, we'll tailor a solution to integrate with your legacy systems and businesses processes, and then assist you through the entire implementation process - arranging for and managing the installation, training personnel in using RFID and handling virtually all other aspects of deployment and startup.



About TW Systems

TW SYSTEMS has been incorporated in the Commonwealth of Virginia since 1995 as a full

service, low voltage Electronics Corporation specializing in Systems Integration, Fire Protection Systems, Access Control, Communications, Burglary, and Closed Circuit Television and help call systems. We offer these services (in addition to others) on a variety of scopes of work to include commercial, industrial, and residential projects for private as well as the public sector.

We operate by using a vast array of equipment and technology. TW SYSTEMS takes pride in announcing that we have been an **EV2** representative since 1998. We have received our Department of Professional and Occupational Regulation Class A Contractors License to operate in the Commonwealth of Virginia. In addition, our license permits TW SYSTEMS to conduct business as well as provide private security services in the Commonwealth. TW SYSTEMS has current prerequisite insurance coverage's as well as a Department of Criminal Justice Services License #11-3351. We are also SWAM certified.