



# Hospital Equipment Maintenance Solution

## Elpas Asset Tracking Application Note

### The Challenges

Hospital Biomedical Engineering (BME) departments are all too familiar with the manual, labor-intensive practices of locating those pieces of mobile biomed devices in need of urgent repair or those devices that require immediate preventative maintenance. Today's full-service hospitals can have anywhere between a few thousand and sometimes up-to 50,000 pieces of movable medical equipment; 90% of which require preventive maintenance every 3, 6 or 12 months. With a hospital campus often covering multiple square kilometers, it's estimated that more than 20% of biomed technician time is spent just looking for missing or misplaced patient care resources. And, often when the equipment is finally located, the assets often can not be serviced since they are found to be in use or have been designated for immediate patient deployment.

The operational availability and maintenance of biomed assets impacts directly on patient care quality and safety as well as the economical health of medical facility itself. Because all licensed medical facilities are highly regulated, patient care assets must be maintained in a manner that complies with JCAHCO, FDA and ISO requirements. Failure to consistently comply with maintenance guidelines may result in unnecessary legal exposure and expensive medical negligence awards resulting from malfunctioning or lack of adequate levels of patient care equipment.

### The Elpas Solution

Elpas Equipment Maintenance Solutions are designed to help hospitals reduce time-consuming, expensive building searches for patient care assets, enhance patient safety, facilitate regulatory compliance as well as mitigate the risk of legal exposure. All Elpas Equipment Maintenance Solutions are comprised of field proven ruggedized hardware, robust scalable software and inclusive design, implementation and support services, each tailored to your needs, your asset types as well as your legacy maintenance and management systems.

Each of your patient care assets is tagged with an Elpas Asset Tracking Tag which has been engineered to support an asset's unregulated movement anywhere within the hospital. When surface mounted on the asset, these miniature tags transmit UHF based ID and location messages (without EMF interference to hospital equipment) so that the asset's whereabouts and operational status can be immediately determined in real-time by the Elpas system.



User defined, rule-based location monitoring enables the Elpas Equipment Maintenance Software to display on facility floor plans the real-time movement of each tagged piece of equipment. Elpas can automatically determine whether-or-not the tagged asset is in motion moving through a hospital corridor, stationary in a patient recovery room, in use in a particular surgical suite or abandoned in a basement storage area.

Intuitive mouse-driven search tools supports on demand searches based on such user defined search criteria as: asset type, asset name, physical location; operational status or maintenance milestones by calendar date. The software can also provide you with operational status data regarding: which assets are in use, those assets which are available for patient deployment or the particular assets that are in need of repair or cleaning.



Elpas Equipment Maintenance Software automatically keeps track of repair data and preventive maintenance intervals (i.e. annual, quarterly, monthly, etc.) for each tagged asset and upon reaching that milestone date can generate the appropriate maintenance notifications. These alert notifications can be sent via e-mail, SMS text message, alphanumeric pagers to the relevant staff members as well as to your legacy maintenance systems.

To facilitate equipment pickups, Elpas enabled PDA's can be used by roaming staff personal to ascertain the location of highly-mobile assets down to sub-room level precision or to perform spur-of-the-moment asset searches in order to further reduce search times.



Additionally as new assets are tagged in the hospital, they can be added into the Elpas Equipment Maintenance Software directly from the legacy maintenance and management systems or simply by scanning them with a barcode enabled PDA.

Most importantly, Elpas Equipment Maintenance Software can whenever necessary generate historical based reports and trend information so that management is able to better understand the actual usage and operational status patterns of different equipment classes along with their corresponding maintenance cycles. Reports can be created based on logged location, status, search or alert notification data and can be exported to Excel, Adobe Acrobat, XML, or printed directly from within the Elpas software.

### Simple Backend Integration

Elpas Equipment Maintenance Solutions seamlessly integrates with other Elpas Active RFID security applications for tracking personnel and patients as well as your mobile assets. By initially implementing Elpas asset tracking and then adding risk mitigation and security functionality, your hospital 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 active RFID platform strategy the ability to integrate with legacy management platforms (such as, patient care, workflow & staff scheduling, billing, asset maintenance, security and billing systems) makes single unified active RFID platforms technically and financially feasible for most healthcare facilities.

### System Benefits

- Improve BME department workflow by knowing the real-time status, availability and location of the equipment to be maintained thus eliminating foot intensive searches for assets that are not available for maintenance.
- Enhance patient care through improved asset utilization rates.
- Facilitate ISO audits, industry guideline compliance as well as mitigate the risk of legal exposure resulting from malfunctioning patient care assets.

### Simplified Implementation

To help identify your needs, plan your solution and implement on schedule, VT professionals along with our Business Partners will work closely with you and your staff every step of the way. Together, we can tailor an Elpas Equipment Maintenance 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 the proper use of active RFID and handling virtually all other aspects of deployment and startup

### For More Information

For more information about Elpas Equipment Maintenance Solutions contact:

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### About Visonic Technologies

Visonic Technologies (VT), a fully owned subsidiary of Visonic, Ltd. (VSC.L), is a global leader in enterprise-class, active and passive RFID/ RTLS real-time visibility solutions for personnel identification and safety; supply-chain logistics, asset protection and facility supervision.

Visonic Technologies is a complete source for active RFID/RTLS systems, personnel duress and site protection signaling solutions; access control readers & controllers plus unified configuration and management software sold under the Elpas, SpiderAlert, VisAccess and EIRIS system names.