

physical made digital



## Asset Tracking



### Application Solutions for Asset Tracking

#### THREATS:

- » Missing Assets
- » Incorrect Usage
- » Expired Warranties & Maintenance

#### INDUSTRIES IMPACTED:

- » Medical
- » Government
- » Professional
- » Transportation

#### BENEFITS:

- » Reduce capital expenditures
- » Balance asset distribution
- » Increase ROI
- » Improve Total Cost of Ownership
- » Instill accountability
- » Limit legal liability

#### Application Overview

Protection of intellectual property and confidential information, location of company-owned equipment and vehicles, tracking of rental equipment are consistent challenges that affect organizations' budgets and profits.

Medical, Industrial, Government, Professional and Transportation organizations all own valuable, transient hardware, equipment, and vehicles which are loaned to employees or rented to customers. Lack of insight into the location and use of these assets leads to lost revenues, reduced profits, consumer and employee safety risks. The inability to manage and track assets poses a major risk to organizations and their customers from several perspectives::

| Threat  | Result  |
|---|---|
| Missing or misapplied assets  | <ul style="list-style-type: none"> <li>• High cost of capital expenditures</li> <li>• Inefficient asset distribution</li> </ul> |
| Lack of visibility into how assets are used                             | <ul style="list-style-type: none"> <li>• Poor Return on Investment</li> <li>• High Total Cost of Ownership</li> </ul>           |
| Lack of insight into warranty, maintenance and service level agreements | <ul style="list-style-type: none"> <li>• Lack of accountability</li> <li>• Legal liability</li> </ul>                           |

Organizations vulnerable to the loss, misuse and lack of insight into valuable assets include:

- **Medical:** Where location, tracking and application of items such as medication, surgical instruments and medical devices is critical to patient safety
- **Government:** Where products such as tools, equipment and electronics are high value, confidential and pose significant risk if not tracked properly
- **Professional:** Where large volumes of laptops, printers, PDAs and other equipment are assigned and re-assigned to employees and contractors leading to a significant amount of loss and/or confusion in tracking the location of the asset
- **Industrial and Transportation:** Where staying up to speed on repair and maintenance of components is critical to customer and employee safety and ROI

SkyeTek is empowering organizations in multiple industries with the insight and control to solve these issues through a cost-effective, end-to-end, embedded RFID solutions approach. SkyeTek solutions equip individual physical items and products with characteristics such as location, expiration date, number of uses, these characteristics are communicated to a network of systems and software to allow organizations to see and manage items and products in operating rooms, on flight decks and in warehouses. SkyeTek's embedded RFID solutions are helping organizations to:

- **Reduce capital expenditures:** track location and movement of assets
- **Balance asset distribution:** gain insight into which assets truly need to be replaced
- **Increase ROI:** ensure that assets are used as intended
- **Improve Total Cost of Ownership:** link asset health and behavior to centralized tracking of maintenance records and service level agreements
- **Instill accountability:** know the who, what, when and where of assets
- **Legal liability:** prevent the use of assets that have expired warranties or overdue service dates



**About SkyeTek:**

SkyeTek transforms traditional RFID into a networking technology enabling goods and assets to participate in a connected world.

SkyeTek develops readers that serve as intelligent edge devices and software that binds policies to tagged items. By extending networks to the physical world, our customers increase revenue through their ability to predict demand, prevent counterfeiting, and personalize user interactions.

SkyeTek combines intelligent software with an inexpensive hardware platform to provide a modern RFID security model, distributed policy management engine, and network-ready readers. Enterprises deploy SkyeTek's solutions to deliver a seamless RFID edge network capable of centralized management and real-time response for applications in item tracking, product authentication, access control, and patron management.

**For more information:**

11030 Circle Point Road, Ste 300  
Westminster, Colorado 80020 USA  
ph: 720.565.0441  
www.skyetek.com



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**Relevant Technical Solutions**

SkyeTek provides complete technical solutions including embedded RFID modules, accessories and software all supported through integration services and custom development where applicable that address the unique characteristics of an Asset Tracking application:

- **Absolute Visibility:** Where is it? Where has it been?



Gain full visibility into the movement, activity and performance of critical assets and inventory items, enrich the user's experience, preserve revenue, assure product quality and reduce capital expenditures by network-connecting handhelds, portal readers and item-level cabinets to back-office systems.

Reference SkyeTek's *Absolute Visibility Solution Sheet* for full details.

- **Service Management:** Is it being used according to business rules?



Ensure proper consumption and configuration, enrich the user's experience, drive revenue and increase customer loyalty through customized interactions and services by network-connecting doors, turnstiles, payment terminals and kiosks to back-office systems.

Reference SkyeTek's *Service Management Solution Sheet* for full details.

**Case Study: GaiShan**

Approximately 140 million people in the world suffer from full or partial blindness. The emergence of low-cost, intelligent RFID readers promises to revolutionize how these individuals interact with the world. GaiShan, manufacturer of products to assist the visually impaired, has embedded SkyeTek RFID reader technology and firmware into a portable audio player that incorporates a "text-to-speech" engine, internet connectivity, and other utilities. The player works in unison with RFID tags allowing the visually impaired user to label household items so that they can later use the system to scan the item, verbalize its identity, and offer other pertinent information about the item. For example, the system can identify a book, name the author, and read a synopsis - the system can also download an audio version of the book from the internet. In addition to identifying and describing RFID-tagged items, the audio player is capable of telling time, playing MP3 files, and broadcasting FM radio.

**Case Study: Advanced ID**

Analysts estimate that as many as one in four of all tires sold are counterfeits. Counterfeited tires not only usurp income and tarnish the brand of the manufacturers, their compromised quality also endangers the lives of drivers and passengers. But counterfeited tires are big business and the counterfeiters have previously adapted to attempts by legitimate producers to curb such activity. With the help of SkyeTek's embedded reader modules, Advanced ID has designed a way to provide every tire a unique ID. With various readers embedded at retail, distribution and service locations tire manufacturer can track legitimate tires. Additionally, SkyeTek's advanced security protects against cloning and keeps producers one step ahead of the counterfeiters.

**SkyeTek Reader Technology** SkyeTek provides a variety of reader technology at both 13.56 MHz (HF) and 860- 960 MHz (UHF). ReaderDNA, a comprehensive reference design, is available for component level integration of the technology including complete design files, BOM, and test fixture. All SkyeTek readers leverage powerful firmware that drastically reduce hardware costs and are delivered in conjunction with ReaderDNA. SkyeModules are controlled via the SkyeTek Protocol, a powerful but simple communication protocol that grants the user access to all features of an RFID transponder. Further, they have been designed with flexible and modular embedded software that allows one to select only the features desired.

