



## Microsoft BizTalk RFID for Healthcare Asset Management Customer Solution Case Study



### Overview

**Country or Region:** United States

**Industry:** Healthcare

### Customer Profile

SYM X is a global provider of medical equipment services, solutions and products providing comprehensive capabilities and innovative options for healthcare. SYM X is an industry leader successfully using adaptive RFID technologies to enhance quality, safety and efficiency for processes, services and patient care in multiple healthcare settings.

### Business Situation

Key healthcare issues that must be resolved: patient safety - 2 million people a year contract hospital-related infections, lost, hidden and stolen equipment, and the U.S does not get commensurate value for our health care dollar.

### Solution

With the help of Microsoft and Innovative Architects, SYM X used Microsoft BizTalk RFID and BizTalk Server 2006 to develop an automated and adaptive inventory visibility and managed workflow solution that dramatically improves patient safety.

### Benefits

- Real-time Asset Location and Tracking
- Enhanced Patient Care and Safety
- Open Architecture & Integration
- Reduced Administrative Overhead
- Scalable



## SYM X improves Patient Safety and Inventory Visibility using BizTalk RFID and Active RF/IR Solution

*“Being an early adopter of BizTalk RFID and using a complete Microsoft solution stack gave us the components we needed to leverage our vast healthcare expertise to rapidly develop an adaptive inventory visibility and workflow solution using Active RFID that dramatically improves patient safety.”*

*Lewis Kilby, Program Director, SYM X Technologies*

SYM X is a global provider in healthcare, offering solutions and products providing comprehensive capabilities and innovative options. SYM X is an industry leader successfully using adaptive RFID technologies to enhance quality, safety and efficiency for processes, services and patient care in multiple healthcare settings. SYM X is privately held and focused 100% on healthcare. SYM X has offices in Miami, FL, and Richmond, VA.

SYM X supports hospital and healthcare staff and patients by delivering multi-faceted visibility and rule-based workflows to the healthcare setting. Harnessing the latest generation of active radio frequency identification (RFID) and infra-red (IR) technologies, SYM X ATLAS (Asset Tracking Location Accountability System) solution vision is to leverage their vast healthcare expertise to deliver an adaptive inventory visibility and workflow solution that supports requesting, locating, tracking and monitoring of assets in a healthcare environment. ATLAS makes use of extremely intuitive user interface and workflows, is rapidly customized and deployed using state of the art technology components, adheres to emerging standards of SOA, solution design, open architecture, user experience, role-based security and healthcare standards and contains extremely dynamic and flexible rules and event messaging configuration and execution capabilities.

In order to quickly develop a comprehensive solution to meet the ATLAS solution vision and requirements, SYM X elected to partner with Microsoft and Innovative Architects, a Microsoft Gold Certified partner, for best of breed technology and solution development capability.

## For More Information

For more information about this Microsoft Solution, call SYMX Technologies Sales Information Center at 305-470-9994. To access information using the World Wide Web, go to: [www.SYMXCorp.com](http://www.SYMXCorp.com)

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. To access information using the World Wide Web, go to: [www.microsoft.com](http://www.microsoft.com)

For more information Innovative Architects custom development and solutions, call the Innovative Architects Sales Information Center at 678.775.6851. To access information using the World Wide Web, go to: [www.InnovativeArchitects.com](http://www.InnovativeArchitects.com)

## Situation

About 2 million people a year contract hospital-related infections. Nurses are spending time looking for equipment and are not focused on patient care, the average hospital over-purchases by 20-30% to account for loss and shrinkage, and while the U.S. healthcare system spends far more than other countries on healthcare, we do not get commensurate value for our health care dollar.

Among the most prominent findings of the 18<sup>th</sup> annual HIMSS survey was “more than half (of healthcare IT managers) said that improving safety and reducing errors was at the top of their priority list when making IT investments. Additionally, “growth in health care spending has outstripped economic growth regardless of the source of its funding...The major factor associated with that growth has been the development and increasing use of new medical technology...In the health care field, unlike in many sectors of the economy, technological advances have generally raised costs rather than lowered them,” according to the Congressional Budget Office

## Solution

The solution is to provide a technological advance that reduces costs, increases patient safety, and reduces administrative overhead.

Three companies – Microsoft, Innovative Architects, and SYMX – came together develop the SYMX vision of ATLAS. In less than four months, the group had coded, tested, and deployed the ATLAS RFID/IR solution – on time and on budget.

In the past, hospital equipment was hidden and hoarded, or lost or stolen. In the frantic ER's or during shift changes, used and contaminated equipment was used on patients. Sub-optimal hospital workflows resulted in long waits for treatment. Administrative overhead was added to physically manage assets and asset life-cycles.

ATLAS now automatically monitors assets and workflows to reduce costs and improve patient safety.

## Software

- Microsoft BizTalk RFID
- Microsoft BizTalk Server 2006 R2
- Microsoft SQL Server 2005
- Windows SharePoint Services 3.0
- Microsoft Windows Server System™

## Benefits

### Real-time Asset Location and Tracking

Using unprecedented high-resolution RFID/IR technology infrastructure, healthcare user is able to easily request, locate, track and monitor assets from PC, kiosk, or mobile device.

### Enhanced Patient Care and Safety

ATLAS enhances patient care and safety by providing customizable workflow routing and rules that trigger email and text message alerts and alarms for potentially unsafe asset use and other required events.

### Open Architecture & Integration

ATLAS was designed to be highly modular and easily connected. Using BizTalk adapters, ATLAS is HL7 and HIPAA compliant, and will easily integrate into almost any existing commercial application. Using our patented EDGE Server and BizTalk RFID, SYMX translates multiple RFID protocols and message types into XML that can be easily routed to other systems.

### Reduced Administrative Overhead

Reduce unnecessary expenditures by ensuring equipment visibility, maximized utilization, and inventory accuracy. ATLAS supports decision making and planning by integrating to existing systems and providing an asset management layer that supports controlled synchronization for asset information across connected hospital systems.

### Scalable

SYMX scales your solution to your specific needs, flexibly ranging from specific process management on a department level to a full-scale installation. An ASP model supports “try before buy” proof of concept implementations, and the SYMX enterprise model supports fully deployed solutions. ATLAS is multi-protocol supporting both Active and Passive RFID and emerging technologies like IR, so you can expand your current RFID infrastructure using ATLAS without having to replace or re-standardize on a different RFID platform.

## Technologies

- Microsoft Visual Studio 2005
- Microsoft .Net Framework 3.0
- Microsoft .Net Framework C#