Edward Bortone
Director of Material Services and Security
Lahey Clinic Expands Its Use of RFID

- Active RFID for Asset Tracking.
- Passive RFID for Access Control, Employee Parking, Payroll Deduction for Cafeteria Purchases and Scrub Suit Acquisition.
Introduction to Lahey Clinic

- 450 MD, 83 year old Integrated Multi-Specialty Group Practice located 10 miles outside of Boston, MA.
- 327 licensed bed Academic Medical Center
- 2 Hospital campuses, combined 1.2M s.f.
- Primary/Tertiary Care Hospital, Level II Trauma Center
- Approx. 20 other specialty or primary care sites
- Approx. 3,000 pieces of mobile/portable equipment
- Over 5,000 employees
Lahey Clinic Burlington, MA
Lahey Clinic North
RFID at Lahey - Background

1999/2000 – Early Adopter of RFID System/Limited Success
System shortcomings/lack of staff “buy-in”

2001 – Evaluation of Biometrics, Iris scanning, RFID.
RFID technology chosen for most flexibility…
physical security; asset mgmt; personal ID.

2004 – Discussions with our Biomedical Engineering contractor, GE Healthcare
corporate commitment

2005/06 – Development of an agreement/partnership with GE
(Initial Focus on Asset Management)

2007 – Commitment to expand the infrastructure to cover both
Burlington and Peabody's entire facilities.
Active RFID – Asset Tracking

We use GE Healthcares RTLS (real time locating system) IntelliMotion System to track over 3000 pieces of portable inventoried medical equipment at our two main facilities.

More and more nurses and clinicians are using IntelliMotion.
Assets Tracked (examples)

Bio Medical
- Infusion Pumps
- Pulse Oximeters
- Feeding Pumps
- Vents
- Physiological Monitors
- Cables
- SPO2 Monitors
- Defibs
- Ultrasound Units
- Pt. weight scales
- Cardiac Monitors
- Fetal Monitors
- Blood Warmers
- Balloon Pumps

Facilitites
- Wheelchairs
- Stretchers
- Cables
- Emergency Carts
- Beds
- Furniture
- Fire extinguishers (future)
- Hoya Lifts

IT
- Servers
- Laptops
- TV Screens
- Mobile/teleco
- Desktops

Lahey CLINIC
RFID in Health Care BOSTON
PRODUCED BY RFID Journal
Theft recovery
How Assets are tracked

Infrastructure Continuously Deployed

Floor 7

WhereNet Reader

WhereNet Tag

WhereNet Antenna
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Over-crowded Patient Corridor
Managing Multi-Site Coverage

Why is this a problem?

- Invisible inventory due to movement between Lahey North and Lahey Burlington, leading to increased rentals, loss and over purchases of moveable medical equipment

How does RFID solution help?

- RFID enables real-time visibility of inventory throughout the enterprise, allowing ease of equipment exchange between facilities
- It shows us how long an asset is in use at each site
- Greatly improves staff efficiency
Containing Costs

Why is this a problem?

- Equipment hoarding
- Excessive rentals, lease/buy of equipments (pumps, vents, etc.)
- Asset loss/shrinkage (wheelchairs, telemetry monitors etc)
- All of above result in excessive cost and also affects quality of care delivery

How does RFID solution help?

- RFID brings real-time visibility and “right sizing of inventory”; ability to find for PM/repair
- Allows tracking of rental or leased equipment
- Prevents assets from walking out with exit alerts (if activated)
- Gives insights into utilization patterns to help make better purchasing decisions
GE IntelliMotion Expansion

Advantages

• Web Based
• Linking GE Healthcare’s IntelliMotion Asset Tracking system with GE’s Healthcare's AssetPlus System (preventative maintenance)
• Network coverage
• Smaller tags
# ROI Spreadsheet

Lahey Clinic

<table>
<thead>
<tr>
<th>Economic Impact</th>
<th>Include in ROI?</th>
<th>Data Provided by</th>
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Passive RFID

- Internal and External Access Control for Building Security
- Employee Parking
- Cafeteria Purchases
- Scrub Suit Acquisition
Lahey Clinic RFID Badge

ESSENTIAL EMERGENCY PERSONNEL
This badge must be with employees at all times for access to Lahey Clinic. Upon termination, return to Department Supervisor.

DO NOT PUNCTURE

HID 12345
Employee Parking
Employee Entrance
Standardize/Simplify for Staff Applications

Why is this a problem?

- Staff security - Access control difficult with multiple systems
- Complex systems, (Iris, biometrics) more probability for failure and slower
- Staff dissatisfaction due to use of multiple tools

How has the RFID solution helped?

- Access control streamlined
- Staff efficiency
- Allows for a unified technology approach / foundation for future applications.....
Questions
Thank You