

## CoxHealth

Springfield, Missouri USA

### Learn How CoxHealth Leveraged One Application's Sensory Network to Solve Another Department's Challenge While Improving Patient Care

#### A Multitude of Benefits

"Lower equipment time to patient. Less time tracking equipment. Less frustration filling patient care orders. Lower rental fees. Labor savings. Faster service to nursing units—better patient care," Barbara Nunn, Director of Central Service, at CoxHealth in Springfield, Missouri lists the many benefits of their asset tracking solution installed in February 2002.

#### A Fresh Answer Meets Department's Goals

The conditions were prime at Cox South for a fresh answer to the ever-challenging task of managing equipment. "With the nationwide nursing shortage as well as changes in reimbursement, it is imperative to find the most labor/cost efficient way to manage equipment," stated Nunn. Cox South, a full service trauma hospital with over 500 beds, is part of CoxHealth, an integrated healthcare system in Springfield, Missouri that provides medical services to more than 750,000 people in an 18-county primary service area in southwest Missouri and northern Arkansas.

"We are a nine-story hospital (Cox South) with nursing units on each floor. We maintain much of the durable medical equipment for these units. This is a lot of ground to cover. It also requires time from staff on each nursing unit to help monitor the location of equipment." Nunn continued, "Our department is a full service department in that we manage supplies to nursing units. We also manage the surgery inventory, decontamination, sterilization, plus assemble surgical case carts for their procedures."

"One of our main goals was to manage equipment without interrupting nursing staff from patient care, yet to support their equipment needs," explained Nunn. "One of the main goals of the asset tracking system was to free up staff from manual tracking as well as to shorten the wait for patient care needs. The system has definitely made this a reality."

#### The Pitfalls of Manual Tracking

Reflecting on the pitfalls of the old method, Nunn explained, "Manual tracking required time from staff on each nursing unit as well as our (Central Service) staff. It created much paperwork, phone calls, and frustration when needed equipment could not be located. It also resulted in unnecessary equipment rental fees."

#### Benefits Realized

**"Lower equipment time to patient. Less time tracking equipment. Less frustration filling patient care orders. Lower rental fees. Labor savings. Faster service to nursing units—better patient care."**

Barbara Nunn  
Director of Central Service  
CoxHealth

#### Positive Word of Mouth Revealed the Solution

Positive feedback from nurses regarding the success of the Tracer<sup>™</sup> IV Staff Tracking System integrated with the Responder<sup>®</sup> IV Nurse Call System by Rauland-Borg Corporation prompted Central Service to consider a similar solution to meet its equipment tracking goals. At the heart of the Tracer system resides location-related data gathered by Versus Technology's passive locating system— Versus Advantages. Versus Advantages uses infrared locating technology via a network of badges (tags) and sensors to automatically collect data on the movement of resources (i.e., people and equipment) throughout a facility. Rauland, one of several authorized Versus Resellers, integrates Versus' locating technology with its Responder IV Nurse Call System. As a person or piece of equipment moves from one "sensed" room to the next, or one "sensed" floor to the next, the system recognizes each new location.

Using the Tracer system with the Responder IV Nurse Call System, the nursing staff can automatically cancel calls, register themselves in patient rooms, and receive room calls on pocket pagers. The Tracer system, in place at Cox North since January 2000 employs 50 staff tags, while



#### CoxHealth Installation Highlights:

- Versus passive locating technology integrated with Rauland-Borg's Tracer<sup>™</sup> IV Asset Tracking System and Responder<sup>®</sup> IV Nurse Call System
- Full service, nine-story trauma hospital (Cox South), 550 beds
- Cox South: 1340 sensors  
Cox North: 300 sensors
- Pieces of equipment tracked:
  - Cox South - approx. 750
  - Cox North - approx. 150
- Tracking 306 infusion pumps, 129 sequential compression device pumps, 69 patient controlled analgesic pumps, bariatric equipment, x-wide commodes and wheelchairs, and a wide range of other equipment



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the system at Cox South, installed since 2001, employs approximately 700 staff tags. Central Service contacted Rauland's local dealer, Audio Acoustics, a sound and communications provider to explore similar asset tracking solutions. Nunn explained, "We had very positive feedback from nursing and felt it was a good fit for us as well."

## Leveraging the In-Place Sensory Network

Recognizing the ability to leverage the staff tracking system and the Responder IV Nurse Call System's installed sensory network, Audio Acoustics recommended Rauland's Tracer IV Asset Tracking System to solve CoxHealth's equipment-tracking challenge. By adding equipment tracking tags and expanding the sensory network to key areas, CoxHealth could benefit from the network back-bone already in place—a significant cost savings to CoxHealth.

The scalability of the sensory network enables a facility to begin with a system in one area or department and expand to encompass others as needed.

## Meeting Patient Care Needs

Central Service tracks approximately 750 pieces of equipment at Cox South and 150 at Cox North. Using a PC, Central Service pulls reports to locate a specific piece or a select group of equipment. Sensors throughout the department identify equipment in "dirty, clean, and holding" zones before it returns to floors. "We use the system to check any equipment out of service showing in our biomed department. We have recently had three nursing units trial unit-based equipment. This is going very well for us. The goal is to have the equipment as close to patient care areas as possible. One of the best results of having the tracking system in place is that when we receive a call from a nursing unit that needs an item for patient care, we can locate the one nearest to their location immediately," explained Nunn. In today's competitive healthcare climate, patient satisfaction is critical to revenue.

## An Added Benefit: Improved Communication with Biomed

An added benefit has been better, clearer communication with the biomedical department.

"The ability to track assets throughout the hospital has been very beneficial to our department. This is especially true in locating equipment for scheduled maintenance. Time spent searching for equipment in the past can now be used productively in servicing the equipment." explained Jim Schurke, Director, Biomedical Technical Services Department.

### Networking Facilities Together

**"In the world of asset tracking, it has proven to be very positive between our two hospitals that have the system installed. We can not only see the equipment in our hospital, we can see the equipment in the other hospital as well."**

Barbara Nunn  
Director of Central Service  
CoxHealth

## A Major Benefit: Two Facilities Networked Together

The most significant advantage has been the ability to track equipment between facilities. Prior to the Tracer system, Central Service was plagued by equipment traveling from one facility to the other. There was no way of knowing where lost equipment was. With the Tracer and Responder IV Nurse Call Systems, the two facilities were tied together via a local area network (LAN).

"In the world of asset tracking," Nunn explained, "it has proven to be very positive between our two hospitals that have the system installed. We can not only see the equipment in our hospital, we can see the equipment in the other hospital as well."

Leasing equipment in the old manual-tracking environment at CoxHealth presented another set of problems. Jonathan Mills, Audio Acoustics' System Design Engineer explained, "With leasing, when you lose a piece of equipment, you must purchase it." The ability to know the location of equipment at Cox South or North, has resulted in lower rental fees.

## The Future

Other departments are considering leveraging the existing sensory network infrastructure to

track other types of equipment. "There is talk of expanding in information systems to monitor portable computer terminals," stated Nunn. The scalability of the system, brings a multitude of benefits to departments across a facility.

## Equipment De-centralization

Schurke stressed, "As the hospital moves forward toward the de-centralization of infusion devices, asset tracking will play an even larger role in our operation. At present, IV pumps are issued from a single point, Central Services. With de-centralization, this equipment will be assigned throughout a 9 floor, 550 bed hospital. We will be depending upon asset tracking to help us make the best use of our time."

CoxHealth is an integrated healthcare system in Springfield, Missouri that provides medical services to more than 750,000 people in an 18-county primary service area in southwest Missouri and northern Arkansas. The health system includes three hospitals; 55 physician clinics; Oxford HealthCare home health agency; and Burrell Behavioral Health, which provides inpatient and outpatient behavioral health services.

For over 70 years, Rauland-Borg Corporation has been an industry leader in the design and manufacture of communications and life-safety equipment for institutional environments. The Rauland Responder® integrated healthcare communications systems combine traditional nurse call with a variety of complimentary communications technologies and management tools. Responder systems offer fast and flexible comprehensive solutions for patient-to-staff and staff-to-staff communication. For more information, please visit Rauland on the web at [www.rauland.com](http://www.rauland.com).

Audio Acoustics, Inc. is a professional sound and communications provider. A family-run business headquartered in Springfield, Missouri, Audio Acoustics serves the healthcare industry in parts of four states with a wide array of integrated hardware and software solutions for faster, safer and more efficient response in mission critical communication. Audio Acoustics is a Rauland-Borg dealer. For more information contact, Audio Acoustics' Healthcare Sales Division at 1-800-240-0770 or e-mail [pgumersell@a-a-i.com](mailto:pgumersell@a-a-i.com).

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