Solution Overview:

**Hugs® Infant Protection on LonWorks®**

Prevents Infants from Being Removed from the Obstetrics Unit Without Authorization, and Prevents Mother/Infant Mismatching

**Challenges**

Newborn infants in the Obstetrics unit face specific and unique security and safety risks. Infant abduction is a well-documented risk, with abductions having occurred in hospitals of varying sizes and types, in urban and rural areas, and in countries around the world. Abduction attempts are usually carefully planned, often involve impersonation of staff or other forms of deception, and can feature violence.

In addition, hospitals must also guard against mother/infant mismatches. Mismatches are a common occurrence, in spite of the universal use of the matching ID band system. This purely manual system is prone to human error from similar or identical names, misreading numbers or returning an infant to the wrong bassinet.

These factors demand that hospitals put in place comprehensive procedures and solutions to protect infants.

**The Solution**

The Hugs on LonWorks solution helps hospitals protect against infant abduction and mother/infant mismatches in the OB unit. Proven at over 1,400 hospitals, Hugs is the mostly widely deployed electronic infant protection solution, chosen for its reliable security, ease of use and flexible adaptation to existing workflows.

**How It Works**

Every infant wears a Hugs tag on the ankle, and every exit point of the obstetrics unit is electronically monitored to detect the tags. Staff members and family may move infants freely within the protected zone, but no one can remove an infant without the system alerting hospital staff. Simple password procedures allow staff members to sign tags out of the system, so babies can be moved from the obstetrics unit for testing or other medical procedures.

**Benefits**

- Increased protection for infants against abduction
- Support for correct matching of mothers and infants
- Peace of mind for staff and family
The Hugs tag contains a tiny radio transmitter. Once activated, the tag emits a special signal every 10 seconds. These signals—indicating that the tag is present in the protected zone and is functioning—are picked up by reception devices throughout the monitored area and relayed to the server PC via the network.

If a tag in close proximity to an open exit is detected by the door monitors, an alarm occurs. The Hugs application software shows the tag ID number and indicates the exact location on a floor plan map of the facility. In addition, with the integrated CCTV option, the Hugs system automatically displays images from the exact CCTV camera when an alarm occurs, so that staff can respond with full knowledge of the situation. The Hugs system can also support magnetic door locks, and can be interfaced with other hospital security systems such as pagers and alarm devices.

The optional Kisses® mother/infant matching component provides automatic matching of mothers and infants. Each time mother and baby are brought together, an audible signal will alert staff of a mismatch. The only additional equipment required for this application is Kisses tags for mothers.

Component Overview

The Hugs Tag
At the heart of the Hugs system is the Hugs tag. This small radio transmitter incorporates a tamper detection mechanism that is enabled as soon as the tag is attached to the infant with the tamper-detecting strap: the tag is automatically enrolled into the system software and protected. From this time forward, the tag emits a signal every 10 seconds to indicate it is present and functioning. The BabySense™ feature of the system also notifies you if the Hugs tag is not securely on the infant, either because it was attached too loosely or due to weight loss. You are given timely notice to snug up the tag so that it is securely attached. The Hugs tag is waterproof, hypoallergenic, reusable and carries a one-year warranty.
Healthcare Platform Server Software
The Hugs system uses a client/server architecture. The Healthcare Platform Server software is installed on a server PC that is connected to the device network (Receivers, Exciters and optional Input/Output Modules) over Ethernet, via one or more LonWorks interface devices.

The server PC monitors the operation of all devices, processes messages received from tags via the Receivers, and houses the database of system activity. It also supplies data to the client applications over a local area network (LAN).

Depending on IT policies, the server PC can be housed in a secure location, or can run the Hugs application software so that it can be used for day-to-day tasks.

Hugs Application Software
The Hugs application software is the main interface for users. The software presents only task-critical information in an intuitive, visual format. Different levels of password access ensure security while allowing staff members to perform their jobs efficiently.

The Hugs software also enables administrators to manage user accounts, write custom procedures to guide staff during an alarm, and make other basic settings. A variety of reports of system activity can be viewed on-screen and printed.

Device Network
The device network consists of Receivers, Exciters and optional I/O modules. Receivers are radio frequency reception devices installed at regular intervals throughout the monitored area of the facility, usually out of view. Receivers receive the Hugs tag transmissions, time stamp them, and relay them to the server software.

Exciters monitor the exits from the safe area (usually the OB department). When a tag enters the field, it immediately transmits a special message to the server software via the Receivers. An alarm will only occur if the door is open, as the infant is then at immediate risk of abduction. Each Exciter also includes two relays, which can be used to control a variety of devices, including magnetic door locks or audio and visual alarm devices. Optional keypads or card swipes may be connected to the Exciter to enable staff to bypass an exit with an infant.

Devices are continually monitored by the system, and a warning message will automatically appear in the software if a problem is detected. They receive power from a central 12/24 V power supply. The wiring for the network uses 16 AWG twisted-pair cable.

Add the Kisses Component for Mother/Infant Matching

The Kisses component is an optional feature that ensures that babies are correctly matched with their mothers. Each mother wears a small, comfortable Kisses tag. It is bonded with her infant’s Hugs tag at birth and for the duration of their hospital stay. Every time the two are brought together, an audible signal from the infant’s tag automatically alerts staff of a mismatch.

- Works anywhere in the facility
- Mother tag attaches with Kisses band or standard hospital band
- Use and reuse any Hugs tag with any Kisses tag for simple tag management
- Supports multiple births

The alarm window gives detailed information about the alarm event.
Solution Highlights

- Easy-attach tag with automatic enrollment: The Hugs tag attaches in seconds and is automatically enrolled in the software. Protection can start right in the delivery room.

- Automatic mother/infant matching: With the Kisses® option, the Hugs solution automatically alerts you if the baby is brought to the wrong mother.

- No manual tests: The Hugs solution requires no manual testing of infant tags or other devices to make sure they’re working. The Hugs software continually monitors the status of all devices, and will generate an alarm if something goes wrong.

- Full supervision: The Hugs solution continually supervises all components, including the tag, which sends a status message every 10 seconds. If the system doesn’t receive these messages for a specified time period, an alarm is automatically generated.

- User friendly: The Hugs solution offers a wide range of viewing options. Users see only the menus and commands they need, all in a standard Windows® environment.

- Comprehensive implementation support: Starting with a detailed site assessment, STANLEY Healthcare works in partnership with IT, clinical and security staff for an effective solution aligned with clinical workflow.

About STANLEY Healthcare

STANLEY Healthcare provides over 5,000 acute care hospitals and 12,000 long-term care organizations with enterprise solutions that transform safety, security and operational efficiency. The STANLEY Healthcare solution set enables customers to achieve organizational excellence and superior care in five critical areas: Patient Safety, Security & Protection, Environmental Monitoring, Clinical Operations & Workflow and Supply Chain & Asset Management. These solutions are complemented by consulting, training, implementation and integration services. STANLEY Healthcare is proud to be part of Stanley Black & Decker, Inc. For more information, visit www.stanleyhealthcare.com.