

What is RFID?

The **RFID** (Radio Frequency Identification) System is a **RTLS** (Real Time Locating System) used to **locate and manage assets**.

It is made up of **physical components**, such as tags on assets and readers in patient care areas that track asset location data, and the **software** that uses this data to allow for **easy locating** of tagged equipment and **asset management**.

The software uses actual floor plans of the hospital units and can locate assets in those areas by category, for instance Beds, Infusion Pumps, etc.

The screenshot displays the TeleTracking software interface for the Halifax Regional Medical System Birthing Center. The interface includes a 'Device Pane' on the left with filters for 'Device Category' (e.g., BED, HOSPITAL, BP/Vital Signs) and 'Device Sub-Category' (e.g., ADVANTA, CENTRA, General Bed). A 'Status Ribbon' at the top right shows filters for 'ALL', 'READY', 'IN USE', 'DIRTY', and 'NON STATUS'. The main area shows a floor plan with room numbers (206-217, 293-299) and labels for 'WAITING', 'CLASSROOM', 'CLEAN SUPPLY', and 'NURSE LOUNGE'. A red box highlights the 'Device Pane' and 'Status Ribbon' areas.

Device Pane
Selectable filters display device locations by category and sub category

Status Ribbon
Displays location of Assets in area based on selected status i.e. display Assets in status "Ready".

Device Sub-Category
Displays Assets by Sub-category with Status within the Area

How can RFID help me in a practical way?

For Nursing

Problem: Your nursing unit just purchased *four* fiber optic illuminators. Within a month, *two* of the illuminators are *missing*.

How RFID can help:

1. The system can alert you via email when the illuminators leave a specified patient care area
2. The system can simply and quickly show you where it is currently located in the hospital in real time
3. If it is no longer in the hospital, the system records the time and the exit location of the device

For Clinical Engineering

Problem: You have a month to do preventive maintenance on 1000 infusion pumps. How do you round up all those pumps without missing any, without disrupting patient care, and still meet the schedule?

How RFID can help:

1. The system can track all the pumps located in each unit in real time
2. The system can show if the pump is ready, in use, or dirty, allowing a Clinical Engineer to do the PM only on those devices that aren't being used
3. If 40 of the pumps are no longer in the facility, the system can prevent lost time searching for what isn't there

For the Budget Process

Problem: There are limited budgets for equipment purchases as well as rental equipment

How RFID can help:

1. The system can track utilization across a category of assets, ensuring that all existing equipment is being fully utilized and unnecessary equipment is not purchased or rented
2. The data on equipment usage provided by the system can be used by each unit and department to make more effective decisions on equipment purchases needed immediately or forecasted
3. The system can deter theft and prevent losses by sending an email alert when high-dollar items leave a specified area, whether it has been “borrowed”, or is in the dirty linen, or in someone’s pocket

Alert Management

Alert View provides instantaneous indication of a System Event.

There are 4 types of Alerts supported by RFID:

- **Asset Availability** – Can be used to indicate specific assets have fallen below required levels.
- **Forbidden Location** – An asset has entered an area where it should never be located e.g. a laundry area or a garbage disposal area.
- **Permitted Location** – An asset has left a location where it is supposed to be located e.g. an asset purchased by a specific department has left that departments area.
- **Exit Location** – An asset has entered an area where it may be removed from the facility e.g. an area with an unguarded exit.