RFID/RTLS OVERVIEW & BASIC APPLICATIONS IN HEALTHCARE VISN 10 - HOSPITALS & CLINICS

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APPLICATIONS FOR RFID/RTLS IN HEALTHCARE

- Patient Location and Patient Elopement
- Medical/Clinic Staffing Location and Resource Allocation
- Patient Transportation Asset Location
- Medical Equipment/Supplies
- Critical Assets/Pharmaceuticals
- Chain of Custody Sample Monitoring
- Equipment Maintenance and Service Monitoring
- Patient Specific Equipment and Assignment
- Bed Availability, Tracking & Maintenance Monitoring
- Surgical Materials/Instrumentation/Sterilization

BENEFITS OF RTLS IN HEALTHCARE

- Improved Patient Safety and Patient Care
- Improved Staffing Resource Allocations and Efficiencies
- Reduction in Product, Equipment Loss & Overall Operational Cost
- Reduction in Liability Due to Improved System Monitoring
- Improved Overall Facility Situational Awareness/ Surge Capabilities
- Reduction in Inventory & Associated Product Waste & Oversupply
- Enhanced Real Time Documentation and Accountability
- Improved Process and Patient Flow
- Enhanced Resource Capabilities
- Reduction in Documentation Errors

RFID TECHNOLOGIES-STANDARDS

ACTIVE (battery powered)

RTLS-hospital asset tracking via access point triangulation

BEACON – timed bursts with A-B logic (RSSI), motion sensing

ZIG-BEE/MESH NETWORK drop down fields

PASSIVE (batteryless)

LF – 125 KHz, 134KHZ

HF – 13.56 MHz   ISO-15693, ISO-14443 a & b, ISO 18000-3, NFC

UHF – 860/960   EPC GEN2, ISO-1800-6

All frequencies regulated by region - FCC/ETSI/Others

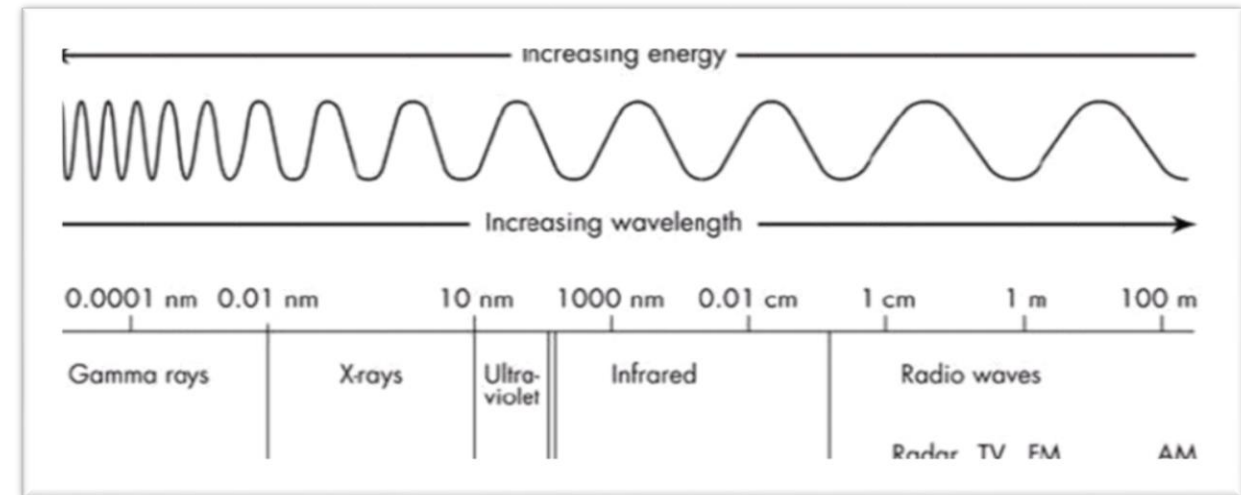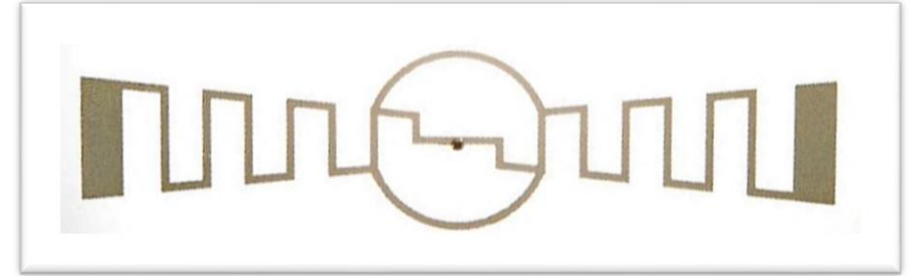# SELECTING AN RFID TECHNOLOGY

CHOSEN BY TECHNOLOGY CHARACTERISTICS

- . READ RANGE

- . READER COST

- . TAG COST

- . DATA SIZE AND TRANSMISSION SPEED

- . TAG COLLISIONS

- . SECURITY

- . INTERFERENCE ISSUES

- . SOFTWARE SOLUTIONS

FACTORS DETERMINING READ RANGE

- **TECHNOLOGY PROTOCOL/STANDARD**

- **ANTENNA SIZE OF TAG**

- **ITEM GETTING TAGGED**

- **READER POWER**

- **IC SENSITIVITY**

- **RECEICVE ANTENNAS**

- **ENVIRONMENT**

TAG SELECTION PROCESS

- o SELECT PROTOCOL TECHNOLOGY (STANDARD)

- o DETERMINE READ RANGE REQUIREMENT

- o CONSIDER MATERIAL BEING TAGGED

- o LABEL SIZE

- o CHOOSE TAG CONSTRUCTION – TT or DT, films, white or clear, adhesives, perforations

- o ID PRINTER BRAND AND MODEL

- o LABELS PER ROLL

RTLS & RFID Technologies in VISN 10 Deployment

QUESTIONS?

For additional Questions concerning the VISN 10 Deployment Please Contact:

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