University Health System Hospital
San Antonio, TX - Phase 1

- 19 Savant DC-10S Automatic Guided Vehicles, ‘target-free’ navigation
- 14,000 feet ‘virtual’ path
- 400 destinations
- 10 floors, 7 elevators
- 3% grade tunnel
- 100 cart moves per hour
- ~31 FTE reduction
- Payback ~2 yrs.
**Control System Architecture**

**AGV System Manager**
- Receive calls for cart moves
- Select & dispatch closest, available AGV for task
- Monitor AGV status & provide performance reports
- Interface to other systems/IT networks

**Inputs**
- Cart Sensors
- Fire Alarms
- Call Box/HMIs
- Barcode/RFID Scanners

**Outputs**
- Elevators
- Doors
- Lights
- Cart Washers

**System Communication & Monitoring**
- Maintain constant communication with AGVs for status and remote dispatching
- Can use existing RF network or can employ independent RF network

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**Self-Dispatching of Your Hospital Carts**

**Tag Info Reported By AGV When A Cart Is Dropped Off Or Picked Up:**
- Date/Time
- Cart Type - ID
- Cart Location
- Cart Destination

**RFID-tagged Cart Move Sequence:**

**Only Operator Action Required:**
1. Place cart in pickup spur

**Automatic AGV System Control Actions**
2. Cart sensor in ceiling detects cart and calls AGV
3. AGV arrives and reads cart’s RFID tag for cart info
4. AGV sends RFID info to AGV System Manager
5. AGV System Manager determines cart destination
6. Cart destination sent back to AGV
7. AGV transports cart to destination

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**World Class Automated Guided Vehicle (AGV) Hospital Cart Transportation Systems**

- Automate your manual cart moves with easily installed ‘virtual path’ AGV systems for existing or new facilities
- Realize substantial savings through reduced labor costs and improved process control
- Under 2 year paybacks are possible
- Start with small pilot system investment and grow as desired with simple vehicle CAD map changes

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**Solutions for Reducing Labor Costs and Better Managing Product Delivery**

**AUTOMATED DELIVERY OF:**
- LINENS
- DIETARY / FOOD SERVICE
- PHARMACEUTICALS
- SUPPLIES
- MEDICAL WASTE & TRASH
- STERILE/SURGICAL

**INTERFACES WITH:**
- ELEVATORS
- CART WASHING
- AUTOMATIC DOORS
- PAGING SYSTEMS
- FIRE ALARM SYSTEMS
- MANAGEMENT IT SYSTEMS

**Typical Cart Pick & Pick Station Configurations**