

A Proposed IEEE P1903.1 Standard for Patient, Staff and Asset Visibility; Structured Data and Data Exchange in Healthcare Visibility Networks.

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Overview

Real-time Healthcare Visibility Networks represent new information technology that clearly has the potential to reduce US healthcare costs and dramatically improve patient safety. However, it is also at the stage where clear structured data definitions, and data exchange paths, data collection rules all have to be defined or it could go the way of many previous complex information technology systems and lead to increased costs and reduce patient safety. This is a proposal to create a standard that will serve as a template for that structure.

Sponsors

GHX, Visible Assets, Inc. others TBD

Scope of Proposed Standard

This standard defines the data, data exchange transactions and general principals emission safety specifications for automated visibility data collection. The automated data collection is based on wireless, real-time visibility, patient, staff and asset management system for healthcare, including the many unique healthcare related considerations for patient safety, patient related data security, data reliability and data logging.

A standard compliant system can provide presence and location in near real time for patients, staff, disposables, implantable and devices and can define and reflect associations among these such as point of use data. The Standard will focus on data formats, and rules for exchange of this data between the many interested stakeholders, to optimize three important goals:

1. Minimize systems costs.
2. Maximize systems cost savings.
3. Maximize patient safety.

Purpose of Proposed Standard

To define standardized data and data exchange transactions so that visibility systems from many diverse manufacturers can provide information a consistent wide range of database driven business applications while not endangering patients in a hospital setting either via direct emissions or via emissions that interfere with the operation of medical devices.

Need for Proposed Standard

Hospitals are a challenging environment for business applications in that the conventional business transaction of 'order a product - receive the product - pay for the product' is often not applicable. Instead, an array of high value items such as implants are often stored on-site on consignment, the appropriate device is selected from this store at the time of a procedure and a purchase order is issued after the device actually used, complicated by the requirement to trace the usage of a device to a specific patient and generate billing from hospital to patient specific payor at the same time.

Applying conventional business practices such as batch inventory via bar code and process changing point of use transaction entry often lead to error prone financial transactions and consequent large dollar value losses to both hospitals and manufacturers.

In addition to device related costs, the difficulty of precisely tracking the expenditure of high value resources such as doctor or operating room time using semi manual methods makes optimization of these resources difficult.

Consequently, there is a significant need within hospitals to employ visibility systems that provide near real time presence and location for patients, staff, disposables, implantables and devices. Visibility systems provide the opportunity to reduce the significant errors that exist today in hospital business transactions while allowing the staff of health care professionals to focus more completely on patient care.

This standard will contribute to the widespread deployment of visibility systems within hospitals, allowing for a very significant reduction in the cost of billing errors while at the same time providing the opportunity for optimization of throughput for patients, doctors and high value facilities such as operating rooms.

Stakeholders for the Standard

Patients, hospitals, hospital staff, FDA, product manufactures, product distributors, and payors.