

Defining and Integrating Healthcare Data

As healthcare costs continue to climb and the healthcare delivery system struggles with reducing medical errors and improving quality, an improved information system infrastructure relying more on real-time enterprise computing may be the way to simultaneously solve these problems.

Traditional information systems applications have been based on the long-term accumulation of data, using a passive style of information management, much based on paper records. The goal in the past has been to archive information for later use if there are no existing ways of entering new data elements. Rarely has the process of building information systems been focused on rapid data integration and new data definition with an intensity that would facilitate using the data to influence the core business processes of the healthcare enterprise in real-time. What we can't store in a computer, we write on paper.

Legacy systems contribute to the complexity in that they solve specific clinical, administrative or financial requirements, but they were not designed to expand easily, are very expensive to integrate and rely on experts to add new data elements.

A system that allowed a more real-time approach to data and application integration would result in:

- ❖ A longer life for legacy systems
- ❖ Faster delivery of useful information to the desktop
- ❖ Fewer untoward events and reduced professional liability costs
- ❖ Improved staff productivity
- ❖ Better allocation of internal and partner resources
- ❖ More involved and satisfied patients
- ❖ Better cash flow and fewer lost transactions and payments
- ❖ Integration of the "e-environment" of employers, providers, patients and payors
- ❖ Tracking and documenting emerging clinical trends threats (risks)
- ❖ Real-time management review and iteration of decisions
- ❖ Improved clinical research and less costly discovery of new interventions
- ❖ Better compliance, safety and faster regulatory approval

The Protected Health Information Repository

The PHI Repository™ and reporting application solves a number of problems facing healthcare executives. It immediately provides an environment for capturing HIPAA transactions and Protected Health Information.

Because it is based on a fully integrated database, the product provides a healthcare customer with a foundation data warehouse at installation and for no additional cost.

Managing New Data and New Relationships

Most importantly the product not only encourages adding new data to the databases without the need to employ programmers and database administrators, it is based on a vocabulary-driven architecture.

Every enterprise is different and each needs a way of managing its own clinical, administrative, marketing and financial information—beyond that which is built into each application. For example, you can add a new clinical variable such as “allergic to penicillin” instantly. Once entered, everyone can use it—immediately. It can be searched, indexed, reported and passed electronically to others. You can add marketing, financial and other person, consumer, contract or family information at will.

These capabilities allow your current systems to be expanded in ways that are usually very expensive, time consuming and complex. And, since the product is based on a repository, you get a database for your enterprise to serve as a standard for data and systems integration.

Clinical care, patient safety and financial and market research is transformed as a result. The technology is no longer the barrier. Sufficient computing power and transmission capability are now available. Telecommunications bandwidth has increased exponentially. Transmission speeds now exceed one million bits per second, up from 19,000 five years ago. Improved connectivity means management cooperation and new methods of planning are possible for the healthcare enterprise in ways that were unimaginable ten years ago. Similarly, speeds of processing and storage capabilities have increased exponentially. The barriers to an integrated paperless healthcare system today are human. The slow pace of standard-setting, the cultural bias to paper, the legal hurdles of a digital record, and the lack of synergistic financial incentives between providers and payers all work to frustrate the movement to a virtual healthcare system.

A renewed and thoughtful strategy to deal with each of these barriers is needed to transform healthcare. Also a coalition of forces is now focused on the paperless healthcare system and each enterprise can now be enabled with a vision and tools that will both work to lower costs and improve quality—affordably and with speed.



Bernard P. Wess, Jr., President
(781)453-2351
sales@perseidsoftware.com

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