



Image-In™ Clinical

Medical Records Document Scanning and Control Solution



Member of Omtool's Healthcare Suite



Symptoms

There are 1,000,000 new documents created every minute in healthcare, which translates into 500 billion documents annually. As hospitals struggle to find space for medical record storage (on and off-site) and replacements for antiquated methods of converting paper into alternate formats such as microfiche/microfilm to meet retention regulations, the associated costs keeping piling up. What is the cost of time spent filing charts and loose documents, looking for charts or documents, producing copies and pulling charts for patient care or audits? Recent studies indicate that 10% of paper documents will either be lost permanently or temporarily misplaced at some point during their life cycle. More paper only means increasing difficulty accessing the necessary documentation to treat the patient. At a minimum, this means staff will likely spend a significant amount of time locating, storing and tracking paper documents. What is the impact of paper in your organization?

Solution

Omtool recommends scanning the medical records to create digital documents that can be stored indefinitely and inexpensively while increasing the efficiency and ease of access to information. Sounds easy, but unfortunately, most offerings are often too complex, pose too great a risk to disrupting current operations and are too expensive to implement. Omtool's Image-In Clinical solution offers the best functionality and performance for the price, offering both a departmental and an enterprise model with the same functionality. This building block approach allows the customer to deploy imaging technology in one or more departments or target areas with the confidence that respective area requirements will be met without compromising the enterprise strategy.

Image-In Clinical

The Image-In Clinical solution is a medical document imaging and management technology replacement for paper records traditionally stored as either paper or microfilm. The technology converts paper-based patient records into electronic folders containing digital documents, allowing more rapid and timely access to medical records, and improving patient care and lowering operating and fixed capital costs. In addition to capturing paper, Image-In Clinical has the ability to import other digital documents or modalities such as EKGs, Fetal Monitors, voice transcription, digital photos and video.

Capture the Images

Image-In Clinical's capture process allows two types of electronic document folders to be created - loose and patient. Loose folders contain documents related to more than one patient. Patient folders are specific to one patient only. Patient verification checks each patient folder to ensure that the patient Medical Record (MRN) and Account Number are valid. There are a number of features which provide the ability to rescan, re-sort and improve the overall quality of each scanned image.

Index the Images

Every document requires a set of indices or keys in order to be searchable and retrievable at a later time. These keys are Medical Record and Account Number which are required for every document and Form ID. Image-In Clinical integrates with the Forms Dictionary in MEDITECH (for example) in order to decrease system maintenance. The index operator can either manually enter index information or Image-In Clinical offers workflow automation through an image processor in order to streamline the indexing process. The image processor reads individual barcodes on documents or header sheets which are blank pages containing just barcodes to identify everything that follows as belonging to a specific patient. Image-In Clinical also accepts CDs/DVDs containing indexed digital documents from outsourced backfile scanning service providers.

Image-In Clinical's robust workflow automation provides functionality to assign reason codes to highlight "incomplete" folders and documents, including electronic signatures when required. Once again, integration with MEDITECH, in this case Incomplete Reasons (ICR) in the MRI module and the physician mnemonics/names in the MIS Doctor dictionary, streamline the implementation process as well as overall system maintenance.

Viewing the Images

The MEDITECH HCIS is electronically updated with each new document, which can subsequently be viewed directly from either PCI or EMR. Multiple users from different hospital departments can view the same or different records simultaneously, facilitating access to patient data and expediting the clinical decision making process. No special training is required to access this data since viewing occurs through modules that are already familiar to your clinical staff.

Once the incompletes have been assigned by the index operator they are processed into the MRI module which communicates the information related to the deficiencies to PCI/EMR. This makes the images available to be signed by the physician from PCI/EMR by entering a username and PIN code.

Since the images are associated with Form ID's built in MEDITECH, they can be setup to appear in PCI/EMR along with other clinical information just like any other document under different Data Sources and Categories. Access, security and audit trails are all governed by MEDITECH when retrieving images through PCI/EMR.

The printing of the entire Medical Record or pre-defined subsets including images can be achieved through configurations from the MIS Medical Records Forms Menu in MEDITECH.

Storing the Images

Omtool's ObjectArchive™ provides the storage and retrieval mechanism for images entered and captured through Image-In Clinical. ObjectArchive provides the capability to store files onto both magnetic and optical disk storage. ObjectArchive is a high-volume, high-capacity data storage solution that also addresses the long term archival of information captured by the MEDITECH clinical and financial software modules. It stores and retrieves ASCII data combined with scanned document images from either the MEDITECH MAGIC or Client/Server HCIS.

ObjectArchive is a proven product that provides support to nearly 300 hospitals in the United States, Canada and United Kingdom and is managing individual Archives of nearly 40 million objects with 250,000 accesses every week.

Built on the enterprise-class Windows 2000/SQL 2000 platform, ObjectArchive can store virtually any number and any type of data objects including monochrome and color TIFFS, Bitmaps, JPEGs, audio/video files - virtually any file format containing binary data. ObjectArchive supports all storage types (RAID, Optical, CD-ROM,

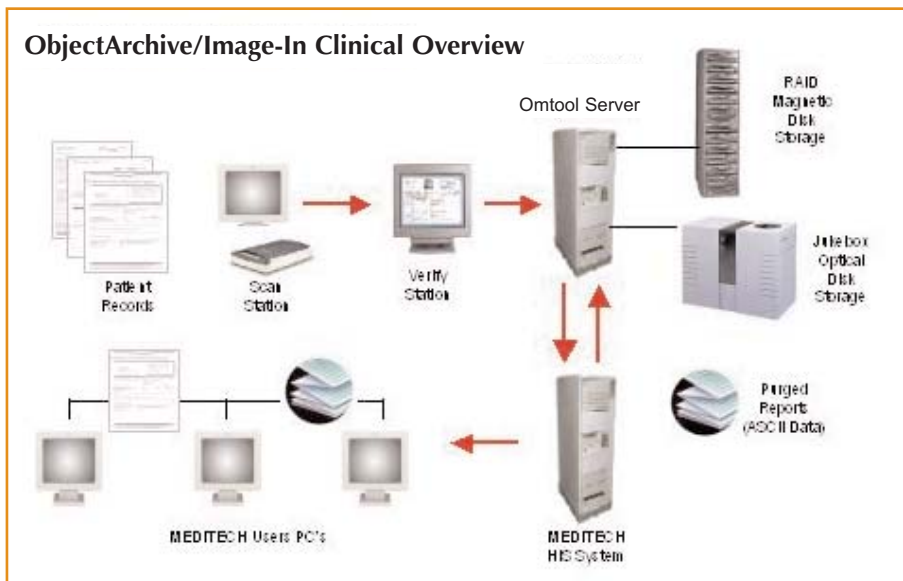
DVD), robust cache management, on-line backups, and is a fully redundant system capable of solving the disaster recovery challenges still faced by most organizations.

Summary

The ObjectArchive and Image-In Clinical systems offer a cost-effective imaging, archiving, and document management software system that addresses MEDITECH hospital requirements for efficient, permanent storage of large volumes of patient medical records and other healthcare documents. By creating a complete picture of a patient's clinical history instead of the traditional fragmented view, ObjectArchive and Image-In Clinical improve efficiency for the health system while improving patient care and satisfaction overall. ObjectArchive and Image-In Clinical in combination with the MEDITECH HIS provide an integrated longitudinal electronic patient record.

Barcoded Forms

The Image-In Clinical modules also work seamlessly with Omtool's ADT eForms™ production system that provides an essential first step toward imaging-based document management. Fundamental to the success of document management and imaging is the ability to index and classify documents in a fully automated manner. For example, ADT eForms utilizes the MEDITECH Patient Admitting and Registration module and its basic patient data to generate laser image forms, route and deliver fully customized barcode-enabled form sets based on the unique requirements of a specific department. Forms such as patient face sheets can be directly deposited into ObjectArchive.



Omtool Healthcare Suite

- ADT eForms™ Production System
- eForms Station™ Electronic Forms Library
- Image-In™ Point of Service Image Capture System
- Image-In™ Business Document Capture and Archive System
- Image-In™ Clinical Back Office Scanning
- Image-In™ Queue Document Processing
- AccuRoute® Document Handling Platform
- ObjectArchive™ Electronic Archive

About Omtool, Ltd.

Omtool, Ltd. is a leading provider of document handling solutions that simplify the integration of paper and electronic documents in enterprise information management systems. Our flagship product family, AccuRoute, streamlines the capture, conversion, communication, and archive of paper and electronic documents, enabling fast, secure, simultaneous distribution to multiple destinations in multiple formats. AccuRoute products deliver faster, more efficient workflows, while reducing cost, complexity and risk. Omtool solutions are used worldwide by businesses in document-intensive industries that demand secure handling, integration and tracking of documents in full compliance with a range of regulatory requirements. Based in Andover, Massachusetts with offices in the United Kingdom, Omtool can be contacted at 1-800-886-7845 or www.omtool.com.



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