

About Cooley Dickinson Hospital

Cooley Dickinson Hospital provides 24-hour emergency care, state-of-the-art diagnostic imaging services, medical, surgical, cardiac and cancer care, childbirth services, behavioral health and rehabilitation. Clinical and laboratory services are provided at the main campus and through a network of local offices.

System Environment

Document Management System
BizTech ProCapture
BizTech ProGateway
BizTech ProMed
QuadraMed Affinity

For More Information

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BizTech Case Studies: Health Care Business Process Automation

24 x 7 Claims Coding at Cooley Dickinson Hospital

The Business Challenge

Provide superior medical services, operate state-of-the-art diagnostic facilities, reach out to patients throughout central Massachusetts to provide clinical and laboratory services, comply with HIPAA regulations, deal with a changing landscape of public and private health insurance programs, and simultaneously strive to improve revenue performance and reduce costs while keeping the patient the focus of care giving and health management.

Strategic Actions

Cooley Dickinson Hospital administration rose to the challenge by envisioning and executing a multi-faceted, multi-year, strategic plan, to:

- build a foundation for automating process management by re-purposing their electronic document archive as a document management system,
- deploy automation to capture, index and import documents and files into the re-purposed document management system.
- integrate programmatic and side-by-side, on-screen, document access with their applications, like QuadraMed's Affinity health information system,
- leverage Microsoft .NET, browser based applications to create a thin client, "anytime, anywhere", secure access environment for back office support applications,
- commit on-going effort to discover and define work processes, and then evaluate, prioritize, automate and deploy new processes with defined and measurable returns,
- deploy process management automation that is dynamic and easy to use and integrate with existing and new applications and systems.

Integrating People, Processes and Applications

BizTech and Cooley Dickinson Hospital engaged in 2000 to modernize and upgrade the electronic document archive system. Hospital IT Management recognized that BizTech's process re-engineering, document management and workflow skills could facilitate their strategic planning and the build-out of new work processes.

Critical to the hospital's vision was the need to create new workflow solutions that would link people, processes and applications within an architecture that was regulatory compliant, could evolve with acceptable cost of ownership and position them to achieve considerable ROI.

Paper forms and documents continue to play a major role. A foundation of enterprise-wide, electronic document management with remote, networked capture points, was needed to image enable existing and new applications.

To continuously reduce time and costs and increase process efficiencies, electronic documents need to be "consumed" and "generated" (like paper) in new, automated work processes.

The first application to leverage the new architecture is called **ProMed** – a browser-based, claims abstracting system.

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ProMed is the hospital's first, ASP.NET, browser based application. Claims Abstracters, called "coders", work from any location, whenever they want, on a 24x7 basis.

- The application runs in a browser, giving the coders access to the ProMed Intranet Web site, log in, and access queues of lab tickets.
- When a ticket is selected for coding, ProMed reads the patient account number and loads the appropriate claim recording screen for the health information system (HIS) into the ProMed window, where the coder reads the lab ticket and types in the abstract in a heads-up fashion.
- When completed, the abstract loads into the HIS and the lab ticket image is stored in the document management system along with its account metadata and a Medical Records Number.
- During the process, the coder can see all current lab tickets for a specific patient. The coder can also view the archive of past tickets to see how previous procedures were abstracted.
- The HIS stores the abstract and generates HIPAA compliant Patient Claims Forms which are processed by ProParser, described below.
- The lab tickets are accessible to authorized network users from the document management system using the metadata (indices) or the Medical Record Number.
- Claims abstract information is accessible to authorized users of the health information system.
- Built in process activity monitoring tracks and reports on each work step (registration, scanning, coding, completed) for every lab ticket.
- **ProCapture** supports document scanning, indexing and storage, to replace paper in the new work processes. For ProMed:
- When a patient checks in to a location, the health information system is configured to generate a barcode label which is affixed to the lab ticket. The barcode contains patient name, account number and date.
- After the procedures are completed, the filled in lab tickets are scanned in and saved in work queues, along with the barcode data.

ProParser picks up reports generated by the health information system, separates the report pages into individual documents, like Patient Statements and Patient Insurance Claim Forms and stores them in the document management system along with index data that supports search and retrieval operations.

Return on Investment

The hospital is positioned to continuously achieve time and cost savings because its technical architecture for improving processes is now modular, extendible and standardized to add additional applications like ProMed. Some, but not all, ROI measurement points:

- Reduce process time (claims coding) from weeks to hours,
- Eliminates gathering, shipping, sorting and filing lab tickets;
- Eliminates "heads down" coding from paper tickets;
- Eliminates searching and re-ordering tickets for multi-claims,
- Eliminates copying and mailing paper internally,
- Reduces need for on-site coders and abstracting services,
- Significantly reduces instances of errors and lost documents,
- Significantly reduces rework,
- Supervisors see real time work status for each document,
- Workstations are configurable via Email, if required at all,
- Single Points of Failure are manageable (continuous work flow).
- Documents stay under the hospital's secure control (HIPAA).



Features & Benefits of BizTech's ProProducts line of .NET Services

ProCapture

Reduces time, paper and labor costs by scanning, indexing and storing scanned and other electronic versions of documents.

Easily configures to accommodate new document types and index look-ups to avoid manual data entry of indices.

ProParser for Reports, Email & Files

Transforms reports into individual, account related documents, extracts indices and stores electronic documents in document management systems, or forwards them to a ProGateway. Transform can reformat documents for content management publishing.

ProMed (Claims Abstracting)

Captures and indexes bar coded documents and presents them side-by-side for coding into health information systems. Captured and coded documents are stored in document management systems along with related metadata. The coded document loads into the target section of the health information system (i.e.: claims).

ProGateway

Monitors queues and imports electronic documents, files and metadata into document or content management systems. Solutions are customized to provide highly granular line-of-business integration, such as data extracts, bridge table population, triggering stored procedures, coordinating multiple document management systems, and servicing global capture queues.

About BizTech Solutions

BizTech Solutions, Inc. (www.forbiztech.com) is a Gold Certified Microsoft Partner and a "best of breed" systems integrator for Work Process Automation and Web Business Applications. BizTech is a single source supplier of enterprise products for automation, workflow, document management, digital signing, and e-commerce applications. Their certified engineers and developers provide design, development and "first call" support services. With 20-years process engineering and related LAN/WAN and Internet experience, BizTech creates and supports solutions in numerous industries.