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## **ROI CASE STUDY DIGITECH SYSTEMS AIG**

### **THE BOTTOM LINE**

**AIG used Digitech Systems and services from Digiscribe to scan and automate its paper-based files. This enhanced productivity and overall efficiencies, streamlined user access to information, and created opportunities for company expansion.**

**ROI: 879%**

**Payback: 1.3 months**

**Average annual benefit: \$435,687**

### **THE COMPANY**

Located in Long Island, NY, All Island Gastroenterology and Liver Associates (AIG) specializes in the treatment of all gastrointestinal, liver, and nutritional disorders.

### **THE CHALLENGE**

AIG was using a paper-based system to document, catalogue, and store both active and non-active patient charts. Medical offices are required by law to keep adult patients' information at least seven years, and over time, AIG accumulated more than 15,000 charts and records.

In 2008, AIG implemented an Electronic Medical Records (EMR) system to digitally capture and file active patients' charts, but found that it could not effectively import and incorporate its older paper-based records with the current automated information. As a result, office personnel started pulling those inactive paper-based charts from the active ones and placed them in a vacant room within the office.

AIG needed a better way to store and retrieve chart data for several reasons:

- It needed to expand its practice within its existing office space. When AIG added a new physician to the practice, it needed to turn existing paper chart storage space into additional office space.
- It needed a more efficient means to access chart information. When physicians or office workers needed to obtain a chart that was not available electronically, they would have to locate it among the paper files, taking time away from seeing patients, managing appointments, and other tasks.
- AIG needed a faster and more secure way to obtain information from any location where a patient received treatment. Requesting files from several

different locations to complete a patient's chart was time consuming and risked the possibility of lost paperwork when those files were in transit.

- AIG wanted a streamlined, secure way for physicians and office personnel to access patient information from any offsite location. Because AIG treats patients in a variety of locations including hospitals, surgical centers, and its medical offices, doctors needed to be able to access records from anywhere at any time without having to physically go to the office.

### THE STRATEGY

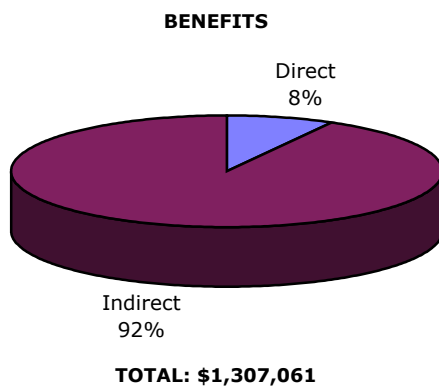
AIG's practice administrator searched the Internet and found Digiscribe, a Digitech Systems reseller. After consulting with Digiscribe, AIG chose PaperVision Enterprise to manage and store its digital documents and Digiscribe to handle the conversion from paper files to electronic files.

Digiscribe scanned most of the patient charts at its scanning facility, and AIG scanned the remaining records on site. The indexed charts were then loaded into PaperVision Enterprise and stored on AIG's internal servers, and since PaperVision Enterprise can support HIPPA regulation requirements, AIG knew that the medical charts would be protected, kept discrete, and disclosed properly. The new doctor's active patient charts were also converted and entered into the system.

Now, doctors and support staff can access the system from their desktops and access information by keyword search.

### KEY BENEFIT AREAS

Moving to Digitech PaperVision has enabled AIG to support company growth and greater profitability, gain efficiencies in its record keeping process while supporting and maintaining compliance initiatives, and increase the accuracy and flexibility of information retrieval. Key benefits from the solution include:

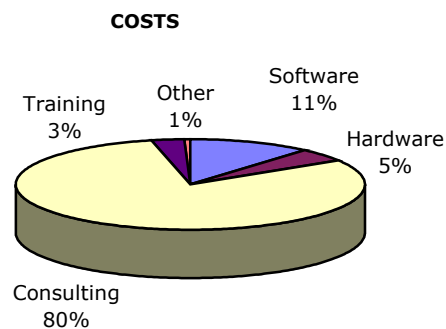


- Increased productivity. With files and records automated electronically, office personnel and physicians no longer have to spend valuable time searching through boxes to retrieve patient records. Doctors can also pull up medical charts while in the examining room with a patient to update their files within minutes. This saves time and allows an increase in the number of patients seen per day.

- Reduced file mismanagement. When paper files were stored in multiple locations, staff had to track down important documents from hospitals or other offices, have the correct authorization to obtain them, and then wait for those records to be sent in order to accumulate a complete chart on a patient. Now, personnel and physicians can access any record by accessing the application via a Web browser and instantaneously pulling information they need.
- Increased overall revenue. The space gained from the removal of hundreds of inactive charts allowed a new physician to convert that vacant room into an additional office space. This increased the total number of patients seen by the practice.
- Increased security. The secure environment and SAS 70 compliance of PaperVision Enterprise ensures that AIG supports HIPPA compliance regulations.

### KEY COST AREAS

Key cost areas for the deployment included software, consulting, hardware, storage boxes for sending existing charts to be scanned, and training. The largest investment was the scanning services. Software and hardware costs include the purchase and ongoing annual maintenance of PaperVision Enterprise software and the purchase of seven new scanners for office personnel to scan and digitally capture files.



**TOTAL: \$50,120**

### BEST PRACTICES

The success of any application within the medical industry depends on two very important factors: ease of use and ready remote access to information. One reason why this solution is so successful is because it allows physicians the freedom to assist patients without coming into the office. They can access any chart from any location, which allows them to respond to problems quicker and be more efficient with their time. Additionally, because training requirements are limited, users are more likely to adopt it.

### CALCULATING THE ROI

Nucleus calculated the costs of software, hardware, consulting, personnel, training, and other investments over a 3-year period to quantify AIG's total investment in Digitech.

Direct benefits calculated included avoidance of FTE and office space savings. Indirect benefits included increased doctor and staff productivity. Productivity savings are quantified based on time saved and the average annual fully loaded cost of staff, using a correction factor to account for the inefficient transfer of time between time saved and additional time worked.

# DETAILED FINANCIAL ANALYSIS

AIG

## SUMMARY

Project:	<b>Digitech Systems</b>
Annual return on investment (ROI)	<b>879%</b>
Payback period (years)	<b>0.11</b>
Average annual benefit	<b>435,687</b>
Average annual total cost of ownership	<b>16,707</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	34,500	34,500	34,500
Indirect	0	401,187	401,187	401,187
<b>Total Benefits Per Period</b>	0	435,687	435,687	435,687

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	5,100	190	190	190
Hardware	2,450	0	0	0
Consulting	40,200	0	0	0
Personnel	0	0	0	0
Training	1,500	0	0	0
Other	300	0	0	0
<b>Total Per Period</b>	49,550	190	190	190

<b>FINANCIAL ANALYSIS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes	(49,550)	435,497	435,497	435,497
Net cash flow after taxes	(24,775)	217,748	217,748	217,748
<b>Annual ROI - direct and indirect benefits</b>				<b>879%</b>
Annual ROI - direct benefits only				69%
Net present value (NPV)				472,394
<b>Payback (years)</b>				<b>0.11</b>
Average annual cost of ownership				16,707
3-year IRR				878%

## FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%