
Best Practices in Imaging & Forms Processing

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Invisible in the Everyday

By Andy Moore, Editorial Director, *KMWorld* Specialty Publishing Group



Andy Moore

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Moore acts as chair for the “*KMWorld* Best Practices White Papers,” overseeing editorial content, conducting market research and writing the opening essays for each of the white papers in the series.

He has been fortunate enough to cover emerging areas of applied technology for much of his career, ranging from telecom and networking through to information management. In this role, he has been pleased to witness first-hand the decade’s most significant business and organizational revolution: the drive to leverage organizational knowledge assets (documents, records, information and object repositories) to improve performance and improve lives.

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I’m sitting in the press “lounge” at the AIIM show in Philadelphia, thinking about imaging. I’m somewhat sheepish to confess that I haven’t thought this much about imaging since this time last year. Sitting in the press lounge. At AIIM.

But that’s not because imaging has diminished somehow as a viable marketplace. It hasn’t. Nor should it suggest that there aren’t still many opportunities for business managers to benefit from automated document capture. There are. And it should not indicate that I haven’t been paying attention to imaging as a technology and a business solution. I have.

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The Full Circle

I used to address a lot of audiences at imaging conferences. There was a story I always told that, I thought, profoundly represented the reality of imaging versus its promise. Stop me if you’ve heard this...

About a century ago, I was part of a group that started a magazine called *Imaging*. It was pretty early on, and our

cost-justify their brand-spanking new imaging gizmos. It had to be something universally painful to every business. It had to have wide-ranging impact across the enterprise. It had to be something that could get executive buy-in. And it had to be measurable in real-dollar savings.

And we came up with it: *File cabinets*.

We figured that scanning all those pages sitting in file cabinets in vast warehouse-like rooms—think of that last scene in “*Raiders of the Lost Ark*”—and replacing them with sleek shiny optical discs (the 12-inch variety) would free up thousands of square feet of office space. (And, I guess, they could have a big yard sale to get rid of all the empty file cabinets.)

THEN, if we could cross-match the newly available real estate with the going rate for office rental in various cities, we could create a “cost study” for the newly paperless masses.

So that’s what we did. It was a top-notch piece of work. We discovered that the payback for real estate reclamation in Boise was about 10 years; in New York City, about 10 minutes, etc. We were proud of ourselves, certain we’d done the industry a great service.

“We were proud of ourselves, certain we’d done the industry a great service.”

understanding of the value of this crazy newfangled technology was primitive. We ran articles about scanner speeds and how often they jam, oversized monitors and how fast they refreshed, OCR and how well it OCRed...typical tech journal stuff. But we also realized that buying into imaging was expensive, and the hardware and software vendors needed to convince customers that their investment was worth it.

So we got a bright idea: Let’s dream up an ROI argument that customers can use to

Until...we got a letter. Now, you have to understand: there’s a specific variety of the human species that takes the time to write letters to the editors of trade magazines. They are typically pompous, indignant and deeply self-righteous. This gentleman was no exception.

He told us that we had made an egregious error, and only a total and immediate retraction of the article would satisfy his wounded intellect. He said that, yes, we had calculated the square footage under the

file cabinets correctly (he checked) and that the real estate figures seemed to be about right. BUT (you could almost see him wagging his finger), *you forgot to include the 18 inches in FRONT of the file cabinets which is required to pull the drawers out*, which, according to OSHA regulation 895, subparagraph D slash 90 or some damn thing, is required for all “safety compliant file-cabinet implementations.”

I sat there looking at the letter, and realized: *There’s GOT to be something more to this imaging stuff than freaking file cabinets.*

The Change in View

Of course, there is. As time went on, everyone’s emphasis shifted away from the physical challenges of converting paper to digital, and to the PURPOSE for converting paper to digital. The first low-hanging fruit to be picked were the workflows that existed in the myriad paper-based transactions such as insurance claim processing or loan originations. These are predictable person-to-person activities, with the occasional exception, that are perfect for automation. Then came the forms-based applications...these required a little more smarts in the character-reading area, more intelligence in the forms identification and zoning functions and still more

work in the verification of data arena. But still, it's imaging.

But for many people, it became more about the process and less about the technology. We championed that—*ImagingWorld* magazine became *KMWorld* magazine. And as our attention was directed toward the business processes and the value to be derived from the content, we came to take image capture for granted. Here's what I said about the same subject last year:

The imaging marketplace, for me anyway, seemed to be concerned mainly with scan and store, making it a mostly custodial task that didn't fit my impression of what business-performance improvement is all about. When the consolidation and commoditization of imaging software and hardware tools began, it looked pretty bleak. When scanners started to show up at Wal-Mart, it was all over.

We finally forgot about those darn filing cabinets. They're still there; they just disappeared into the everyday.

"We're still trying to get rid of filing cabinets." That's what Naomi Miller, director of solutions marketing for EMC Software, said when I told her this story. "Three years ago we noticed a funny thing: about 50% of our engagements were Web content management-related, but the other half had paper document—imaging—requirements. And we weren't even focused on that at the time. But we said, 'maybe there's something to this imaging stuff.'"

Indeed. The "we" Naomi is referring to is Documentum, who certainly should know. Documentum has been up to its armpits in document management for years. Then Documentum was acquired by EMC, the storage giant. And just a couple months ago, EMC added Captiva, an *imaging* company to the fold. Which all makes an interesting story when you stop to think about the imaging market and its viability, which I am doing right now in this press room at the AIIM show in Philadelphia.

The common arc is for imaging and document management companies to aspire toward ECM. But this is the story turned backwards.

"Yes, we're going the other way," laughed Naomi. "A few years ago, I asked: 'Haven't we sold all the imaging that can be sold? Doesn't everyone already scan all their paper?' But I was soon educated about how much scanning was yet to be sold. I can't believe how much imaging we've supplied in the brief time since we acquired Captiva."

Isn't it somehow passé to call it imaging? I asked. Don't you want to make it sound sexier? "We're actually not sure what to call what we're selling," admitted Naomi. "The term we're using for it is *document and image processing*. We're trying to indicate it's more than just scanning paper—it includes the entire electronic aspect of document management,

but it's really about the processing and the BPM. The automating of your business process is what gives you the ROI."

I wondered whether this is just workflow—or even less politically correct, re-engineering—dressed up in new clothes. "There's a difference between BPM and workflow," explained Naomi. "One example is that instead of having to presuppose who needs to do what (as with workflow), you set up queues that are prioritized and load balanced, then you assign a number of people to these queues. This way you can dynamically readjust who's working on which task."

And she's right. The old concept of "reengineering workflows" lost favor when it was determined to be simply paving the cow paths—automating processes without necessarily *improving* the processes. Nowadays, it's impossible to presuppose *anything*, which, of course, is one of the basic tenets of knowledge management: *We don't know what we don't know.*

"When you automate a process, you never know what kind of content you're going to need to support it."

"That's right," Naomi agreed. "When you automate a process with BPM, you never know what kind of content you're going to need to support it. You may need COLD reports, images, XML feeds, Word documents. That's what's capturing the imagination of customers."

She continued: "We now have an earlier conversation with the customer regarding the capabilities capture brings to the table, when integrated with content and records management, and attached to a retention policy, etc. The whole end-to-end message seems to resonate with customers."

"Capture everything—whether it's paper or electronic—process as much as you can early on in an automated fashion and be smart about how you optimize your storage...take advantage of a tiered storage plan so you can pay less for your archives."

So the strategy of a storage company gobbling up document management and then capture starts to become clearer. It's all about

making the various technology components that formerly had to be separately implemented *disappear into the process*. Right?

Not so fast.

"There are some applications where it makes sense to simply capture and archive," Naomi pointed out. "Archiving is different than content management; it's a simpler demand. There may not always be a process associated with a document."

"It just depends," she continued. "If you have nine floors of backfiled patient records you want to get rid of; that's an imaging/archiving solution. If you want incoming patient documents to trigger a business process, go through various approval cycles all the way through to the insurance payer, then your so-called 'imaging' solution is not merely an imaging system at all; it's a BPM solution that uses imaging as part of it."

Capturing everything up-front just avoids the loss of opportunity. "The danger of scanning and sending to an archive silo is that those images can never be used. But if you apply even a small amount of content management, at least you have the opportunity. A lot of times in the old way that opportunity never was available. All you could do was scan and archive. And then you're stuck."

At least these days, I suggested, storage is cheap enough that you can afford to "capture everything" just in case. "Well, it is much less expensive, but you still need to be smart about it. The people who are interested in getting information off a document and into a process don't care about the storage issue...that is true. But it matters, because there's a lot of stuff to store! If you're going to scan those nine floors of file cabinets, you're going to have to show a good return on the investment. That's where tiered storage comes into play. The retrieval time might be a second, versus sub-second. But if you're smart about where you store what, it doesn't matter."

That's why a storage company would be interested in a document management company then, correct? "Yes, so customers can be smarter about tiered storage. All 'storage' knows about is the file name. Document or content management knows about the lifecycle demands of the business process," explained Naomi.

So as I sit here looking around at the enormous displays on this show floor, each trying to stand out as unique and differentiated, I find it ironic that the end game is actually the exact opposite. There should be no seams showing between the acquisition of information (whether through image capture or direct electronic means), the applications that use that information to accomplish the many business processes and the final resting place into which it is ultimately stored.

As long as it's not a daggone filing cabinet! ■

The Importance of Document and Image Processing to ILM

Dave DeWalt, President of EMC Software Group, EMC Corporation

Paper is not going away. The goal of the paperless office is still a dream to most businesses. The reality is that most organizations are still dependent on paper-based transactions. Bid proposals, purchase orders, invoices, printed and hand-written forms and legal documents continue to consume reams upon reams of paper. Consider the examples of mortgage applications or insurance claim files which contain hundreds of pages each.

Many organizational and operational issues originate from our continued dependence on paper, including the high cost of paper storage and the costly inefficiencies which go along with manually handling paper. Difficulty locating information, manual retrieval and re-creation of documents all contribute to a lack of productivity and costly inefficiencies. Finally, the legal risks and costs associated with responding to litigation or a regulatory request skyrocket when the required information is in paper form—often archived in a warehouse.

Because eliminating paper-based transactions is unrealistic, companies must find ways to convert paper into digitized information that can be analyzed, indexed, attributed, processed, filed and stored securely. They need an information lifecycle management (ILM) strategy that includes content capture functionality, enterprise content management and a storage infrastructure capable of enterprise archiving.

Capturing Paper-based Information is Crucial

While enterprise content management and archiving solutions by themselves can save an organization enormous time and costs, integrating input management software is crucial to ensuring that all of an organization's content is available for use as a valuable business asset.

First, automated document capture provides immediate cost savings because data enters the process management of the enterprise content management system faster and less expensively than through manual entry. The quality and usability of the information is

improved because mistakes associated with manual entry are avoided. Through automatic classification, indexing, extraction and routing, inaccessible paper records are transformed into instantly usable electronic business information, resulting in faster business processes and more accurate and timely response to customer service, compliance requirements and daily business situations. As a result, organizations gain a richer understanding of their information and become better equipped to classify it, create policy-based process management and automate ILM.

Integrating Content with BPM

Once captured appropriately, transactional content can be made available to the business process management (BPM) system. Many of the processes where transactional content can be found are highly repetitive processes that are good candidates for this, such as loan origination, invoice processing, claims processing, case management and new account setup.

Once this content is made available to the process management system, an organization can look forward to: efficient reuse of standard content; better decision-making because more relevant information is available; reduced risk; and improved agility through increased responsiveness to business and



Dave DeWalt

David DeWalt is president of the EMC Software Group at EMC Corporation. With 2005 revenues of \$9.7 billion and nearly 27,000 employees worldwide, EMC is a leader in products, services and solutions for

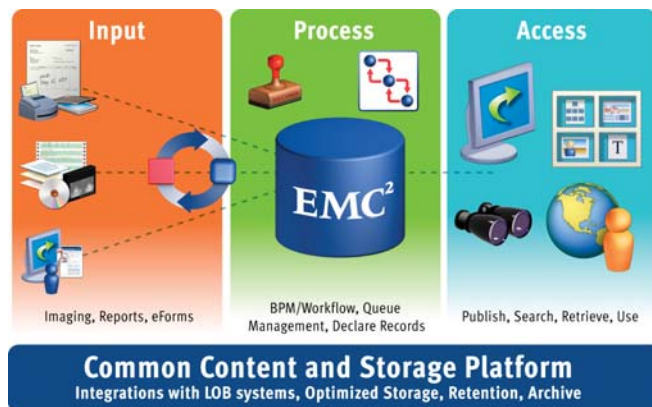
information storage and management, helping organizations extract the maximum value from their information at the lowest total cost across every point in the information lifecycle. EMC also ranks as one of the world's 10 largest software providers as measured by software revenue.

DeWalt reports to EMC president and CEO Joe Tucci. He joined EMC in 2003 through the acquisition of Documentum, a global leader in enterprise content management, where he served as president and CEO.

competitive factors. While these benefits are inherent with highly automated processes, gains in efficiency and control also extend to other types of content.

Providing Access with Appropriate Controls

Global, on-demand access to digital content provides employees with a 360-degree view of customer data and business transactions. Critical data can be easily extracted to quickly access and intelligently process a customer's request. Employees can search, view and annotate documents. Information retrieval occurs more quickly with powerful metadata search capabilities or by browsing through the folders and categories that organize the repository. Access also facilitates collaboration, which can be triggered automatically to improve the speed and quality of decisions and service.



Document and image processing solutions enable capture, processing and access of electronic images of documents.

Two Market Use-case Stories

End-to-end solution increases efficiency at retail and commercial bank.

In the competitive retail and commercial banking marketplace, improving operational efficiency has become essential for survival. That's why one of Europe's leading private sector banks, with consolidated assets of nearly 400 billion euros, chose to streamline its corporate credit lending process using EMC Documentum content management software. When the system was first implemented, the bank had some 100,000 pages of documentation related to the previous year's business, growing at a rate of approximately 150 pages per day (or one file cabinet per month). Today, the need to retain paper has been virtually eliminated.

Business rules are now modeled within a new automated system and all documentation (including the loan application form, risk analysis, return on investment spreadsheets, presentations, correspondence, annual reports, meeting agendas and minutes) is stored electronically in a central repository. Client-generated correspondence and other documents originating in paper form are acquired by scanning. Loan applications, meeting minutes and all supporting credit documentation are entered using XML-based online forms. With a central repository, groups can work in tandem on a credit application—resulting in greater efficiency and faster time to final approval. The bank's internal audit rating has also dramatically improved due to better business policies for capturing an audit trail and for avoiding the potential for lost or misplaced documents.

Automating the deal lifecycle in the affordable housing market.

In the field of affordable housing, the process of putting deals together is highly transactional and generates large volumes of paper, with individual documents that include hundreds of pages. One pioneer in the affordable housing field, which underwrites and acquires 80 to 100 multifamily properties each year, turned to EMC to boost productivity and profitability. The company implemented a central repository for managing its deal documents based on EMC Documentum content management integrated with EMC Captiva InputAccel for document acquisition. The new system provides a single access point for all content necessitated by a deal, streamlines search and retrieval and allows users to electronically route documents into the electronic workflow.

According to the company's director of information technology, "Our direct costs for onsite and offsite document storage as well as the administrative costs for filing and photocopying all of that paper were growing rapidly. And our indirect costs were also increasing proportionally—from the time it took to search for a document to the time wasted working on incorrect versions.

"Today," he continues, "acquisition and asset management teams spend less time searching for documents and more time managing their deals. Likewise, our tax department has significantly reduced the amount of paperwork that accumulates each tax season; they now review tax returns via an electronic workflow in conjunction with our external CPA firms. There's no question that this platform has become an integral part of our business, and is essential to our day-to-day operations."

But access must also be controlled to protect customer confidentiality and ensure the integrity of records. Managing transactional data must include security measures to determine who can access each document and how often, as well as annotation capabilities that include information about who commented on documents and when, among others.

Archiving and Storing

Generally there is a time in content processing where a document is no longer active, at which point it can be checked in and out, but, if it is altered in any way, a new record will be made including metadata that describes who made the change and when. This ensures the record is protected in compliance with regulatory and business rules. It also sets into play any retention policies as to how long it is stored and eventual disposition.

The choice of a storage strategy is important with transactional content because of the sheer volume of documents. An organization can realize significant savings by moving archived documents from "primary," high-

performance storage devices to "secondary" devices for less frequent access.

Reaping the Rewards of an End-to-end Solution

Transforming paper-based content into usable, digitized information delivers significant business benefits to organizations utilizing enterprise content management and enterprise archiving as part of an ILM solution:

- ◆ Manage all types of business information such as high-volume scanned originals, digital pictures, application documents and email in a common format with validation of content;
- ◆ Provide a consistent and integrated approach for archiving and retrieval for all of an organization's information;
- ◆ Eliminate the costs and risks of misplaced documents;
- ◆ Respond quickly and accurately to legal or regulatory requests;
- ◆ Improve customer service with better, faster, more complete response; and

- ◆ Enhance your market position relative to competitors who still struggle with manual processes and paper documents. ■

When EMC acquired Captiva Software in late 2005, it did so to provide customers with an expanded range of capabilities in information lifecycle management (ILM). With the EMC Documentum® enterprise content management platform and Centera™ enterprise archiving system already in place, Captiva's input management software provides a solution for the front end of ILM: information capture, digitization and categorization.

Input management software—which provides for the conversion of paper-based information to digital formats—has become increasingly strategic as companies electronically capture, digitize and categorize more of their information. EMC Captiva® software products digitally capture, classify and index paper and electronic documents and extract the business-critical information within them. Business rules and decision processes are then automatically applied to ensure accuracy, and the results are exported transparently into information systems for ERP, accounting, credit, documents and content management.

Now, with the combination of EMC Captiva, Documentum and Centera, organizations can leverage a portfolio of products to completely streamline their content processes—from input to archive.

Capture Software Nets Discounts & Savings for Freight Payment Services Provider

FlexiCapture Software Helps Trendset Continue Setting Trends.

By Arthur Gingrande, Partner, IMERGE Consulting

Trendset, a provider of advanced freight accounting and payment solutions, found itself stymied by a daily mountain of paperwork that severely limited the number of documents it could process for its customers. However, the deployment of ABBYY's FlexiCapture Studio software has dramatically changed Trendset's data processing operations. In fact, Trendset's data entry operation is far more productive than it ever was.

The Problem: A Daily Mountain of Paperwork

One of the most important services provided by Trendset is *pre-auditing*, which is by far the most efficient form of freight bill inspection. Enabled by proprietary Web-based accounting programs, Trendset's pre-auditing of freight bills is an ongoing process of checks and balances. Using rules derived from the shipping contract of each client, the online system constantly verifies the accuracy of rates, contracts, classifications and other issues that affect freight and shipping costs. It alerts customers to any issues that need attention prior to payment of the freight bill. Trendset's pre-auditing system annually produces hundreds of thousands of dollar savings for its largest customers, with comparable savings for the smaller ones.

Trendset's services include electronic data interchange (EDI) as well as paperwork processing—in fact, the ratio is 75%-25% in favor of EDI. However, the ratio of labor-to-

processing time with respect to each media category is reversed. As the daily workload grew over the years, the sheer volume of paper that the company had to process each day to meet customer demands became unduly burdensome.

The mountain of paperwork that Trendset continually processed for its clients every week had to be converted into computer-usable data within a narrow window of time, measured in only a few days. Hiring more workers was not the answer, because the cost would have cut too much into Trendset's profit margin. At the outset of 2006, Trendset decided it had to face the problem head-on. The solution lay in acquiring the technology that could successfully automate the processing of a recurring mountain of paper that topped 150,000 documents per week.

The Solution

Trendset's major problem was that the majority of the shipping documents and forms that the firm dealt with each day were not suitable for batch-processing because they were either *semi-structured* or *unstructured*, meaning that, as a whole, their layout was neither similar nor consistent in design. This lack of design consistency mandated a flexible system that, ideally, required the forms to be scanned, recognized and processed "on the fly" when they entered the mailroom, without benefit of creating special templates for batch processing. After interviewing

and testing a number of systems that were judged unsatisfactory, Trendset discovered ABBYY's FlexiCapture Studio software. A demo showed that the system could automatically capture and convert imaged data on unstructured paper forms into computer-usable data at an extremely high accuracy rate.

Trendset already had in place an industrial-strength scanning system powered by two high-speed Kodak scanners into which documents from the mailroom were fed. The mailroom was staffed by five full-time personnel who opened and extracted documents from flat envelopes, and then sorted the mail each day by placing all mail documents in separate trays arranged by carrier. Next, the trays were delivered to scanning stations where five scanner personnel would pull out staples or paper clips from the documents, smooth them out and put separator sheets in between each invoice, bill of lading and delivery receipt to enable scanning them at high speeds. Afterwards, they removed the sheets and archived the paper documents to fulfill retention requirements. In this way, they scanned all of the mail sent to their department from the mailroom: some 120,000 to 150,000 pieces of paper that arrived in 40,000 to 50,000 flat envelopes per week.

After the invoices, bills of lading and delivery receipts were all scanned, they were recognized by the existing ICR system that captured the data from all forms at an average of two fields per form. At this acceptance rate, in addition to the two fields recognized, 25 data entry operators were required to key in the data from sixteen more fields on each form that the ICR system could not locate and classify. Trendset needed this much labor to speedily extract all the information from the forms necessary to compute, track and audit the volume discounts due to its customers, and then to immediately report this data to clients via the Web on demand.

The deployment of the capture system dramatically changed Trendset's data processing operations. The number of mailroom personnel is now one staff member instead of five. The number of document prep workers has been cut down by one, from five to four. But the largest improvement has occurred in reducing the data entry staff. Now it only takes five people instead of 25 to do key entry and ICR error correction.

But staff reduction is only part of the story. Now the system extracts all the necessary data from each form—as many as 18 fields on a form instead of the two fields captured by the old system. Moreover, the average turnaround time per document has been cut by 50%, from eight days down to four. Also, because of high classification accuracy, there is no more need for separator sheets. The expense reduction that results from eliminating the paper separator sheets alone yields annual savings of \$60,000. ■

The Bottom Line

	Before	After FlexiCapture Studio
Full-time Employees (including Mailroom, Document Prep/Scanning, and Data Entry Staff)	35	10
Fields Automatically Captured by System	2 (16 fields needed to be entered manually)	18
Processing Time	8 days	4 days (50% time savings)
Annual Savings	N/A	Cost of 25 FTE plus \$60,000 savings on cost of separator sheets

The Missing Element in Imaging Today—Ubiquity

By Larry Warnock, Chief Marketing Officer, Vignette

Document imaging technology, for all of its benefits to organizations previously burdened with paper processing and storage costs, is an incomplete solution. The next challenge lies in making the digitized content available to all constituencies in a convenient, ubiquitous, controlled and personalized fashion.

Imaging and Workflow

Document imaging technology coupled with workflow automation software provides an established vehicle for capturing, managing and storing structured and unstructured information. Organizations with high-volume throughput requirements, manually processed information transactions or requirements for highly controlled information routing and approvals have been the primary beneficiaries of document imaging and workflow processing systems. Today, many such organizations rely on this technology to create, capture, retain and distribute virtually all forms of document and transaction content including images, forms, computer-generated reports, statements and invoices, office documents, Web content, emails, faxes, rich media and online assets.

Most systems store this digitized content in a repository, allow access to the content through some form of query and provide a viewer for content display.

Organizations that adopt this type of imaging and workflow system often see significant cost reductions. They are able to transition from paper to high-volume digital processes and streamline their document-intensive transactions. Many use the technology to ensure the retention, access and expiration of business information assets.

These systems can also have a positive effect on customer service. By giving public-facing employees quick access to digitized content, organizations can become more responsive to the needs of customers and partners and more efficient in their customer service processes.

Finally, these systems help reduce paper document storage and, through the creation of tighter information controls, help organizations meet compliance and governance obligations.

But for all of the progress imaging systems represent, they often lack the ability to

deliver the content to all appropriate audiences, regardless of their location.

Broadening the Circle of Beneficiaries

Consider the following scenarios:

A prospective property owner is standing on a piece of rural land. He realizes the property markers are ambiguous and, seeking a definitive indication of where the property lines lay, he opens a browser on his Blackberry, visits the website for the local county government, pulls up the appropriate plat and begins walking off the footprint for his new house.

An attorney is researching a real estate closing on behalf of her clients. Rather than travel to the Registry of Deeds and wait for a Registry employee to retrieve the appropriate title documents—at the cost of \$135 per hour to her clients—the attorney pulls up the title from the Registry's website and completes the search process from her desk.

These and countless other scenarios underscore a significant limitation in most current document imaging and workflow automation implementations: while they provide high-throughput content handling and process automation, they fail to make content available to the broadest set of constituencies in an open, convenient, personalized and controlled fashion.

Opening a Portal

Extending content to multiple constituencies is the role of portal technology. And marrying a document imaging system with a portal—or selecting a document imaging system that offers portal capabilities—lets organizations provide a single point of access for customers, employees and partners to document-intensive content that was previously accessible only to a select audience through a specialized viewer.

A full-featured portal can provide sophisticated self-service capabilities to a broad set of audiences, which in turn makes highly personalized online experiences possible. Such portals allow content owners to assert control over the nature and extent of that online experience through content targeting rules. At the

same time, consumers can access the content they need, where they need it, when they need it, using ubiquitous Internet technology, Web browser software and the digital device of their choosing.

Healthcare is Blazing the Trail

Healthcare is on the cutting edge of just such a transformation from closed document imaging systems to portal-centric imaging, workflow and distribution systems.

A growing number of healthcare providers have deployed so-called electronic health record systems that are healthcare-specific implementations of document imaging technology. With these systems, physicians and other provider employees can retrieve patient information in real time. Provider organizations have benefited enormously from the time savings and other efficiencies these systems deliver, and they readily attest to improvements in patient care.

“Organizations often see significant cost reductions.”

But innovative healthcare organizations have taken the extra step of building additional capability and flexibility into the delivery of the electronic health record they manage. Adding portal capabilities on the front end of the imaging system means doctors can get a physician-specific view of patient data and records all in one screen. It means administrators and financial personnel can use appropriate portions of the patient record to manage the business side of the healthcare organization. It means patients themselves can have browser-based access to their own health records, allowing them to be better informed and make better healthcare decisions. Finally it means ubiquity, convenience and efficiency goals are met as are compliance regulations surrounding the sanctity of patient data. ■

For more than ten years, Vignette has helped some of the world's best-known organizations leverage their content to create new opportunities, enhance profits and realize greater savings and efficiencies.

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