PayStream Advisors

PayStream Research Fall 2004

Corporate Insights Report

Imaging and Workflow:

A Buyer's Guide to Accounts Payable Automation Solutions

Navigating the Future of Financial Automation

Executive Summary

Businesses' emphasis on cost containment and productivity enhancement during the past few years has inspired accounts payable professionals to seek out new ways to automate traditionally paper-based, labor-intensive processes. The need to document and secure these processes to ensure compliance with the Sarbanes-Oxley Act of 2002 has provided further impetus, especially where senior management has been involved.

Our latest research indicates that businesses are turning to Imaging and Workflow Automation (IWA) solutions that streamline the invoice receipt-to-pay cycle to meet these new requirements for efficiency and control. Consider the results of our *2004 Financial Automation Survey* of Fortune 1000 finance, treasury, and accounting professionals:

- 40.0 percent and 27.4 percent of respondents said that workflow tools and imaging and document management solutions respectively will be critical to their payables automation strategies for the next 18 months;
- 30.1 percent and 27.4 percent of respondents said that they plan to deploy an imaging and document management or workflow solution respectively during the coming year.

This report is written for the 25 to 30 percent of survey respondents who are actively exploring IWA solutions. Beginning with an introduction to IWA, it describes the most common forms that solutions take and highlights the benefits that they deliver. It concludes with an in-depth profile of one of the top vendors in this space—AnyDoc® Software—describing in detail AnyDoc Software's solution and its approach to IWA.

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Introduction

Several years of economic uncertainty and the passage of the Sarbanes-Oxley Act of 2002 have done wonders to raise the profile of accounts payable. As businesses have shifted their emphasis from growth to cost containment and productivity enhancement, accounts payable departments have come under renewed scrutiny for their reliance on costly and inefficient paper-based processes. At the same time, Sarbanes-Oxley has increased senior managers' focus on accounts payable by drawing their attention to the compliance risks inherent to manual, paper-based processes.

Our latest research suggests that these forces have sharply increased accounts payable professionals' interest in a rapidly maturing set of technologies that we call Imaging and Workflow Automation (IWA). According to our *2004 Financial Automation Survey* of finance, treasury, and accounting professionals, 30.1 percent of respondents expect their organization to implement an imaging and document management solution during 2004. Similarly, 27.4 percent of respondents believe that their organization will deploy a workflow solution to streamline approval processing this year.

Given these results, we felt that it was the ideal time to provide accounts payables professionals insights into the IWA automation universe and profile one of the top vendors in this space—AnyDoc Software. Following an introduction to IWA and its various flavors, this report details AnyDoc's approach to IWA and its solution for automating the invoice receipt-to-pay process.

The Case for Accounts Payable Automation

People have dreamed of a paperless workplace for decades. In the 1960s, for example, futurists predicted that organizations in the new millennium would exchange information in a fully electronic manner. This sounds quaint from our current vantage point, but who knew that getting rid of paper would be more difficult than putting men on the moon? The unfortunate reality is that corporate processes remain mired in paper, and no one knows that better than accounts payable professionals.

The results of our *2004 Financial Automation Survey* illustrate that accounts payable departments continue to experience problems at all stages of the invoice receipt-to-pay cycle (see Figure 1). For example, the process of receiving and preparing invoices for processing—invoice receipt, matching, and imaging/data capture in Figure 1—causes significant pain to roughly one quarter of respondents. Pain increases as a transaction unfolds, building with approval processing and peaking at discrepancy resolution and exception processing. Access to invoice information and payment cause relatively little pain, reflecting the widespread availability of reliable, inexpensive payment options, as well as the persistent view that it is optimal to pay slowly.

The survey also revealed that accounts payable professionals have a keen interest in technology solutions that will streamline and automate some or all of these functions.

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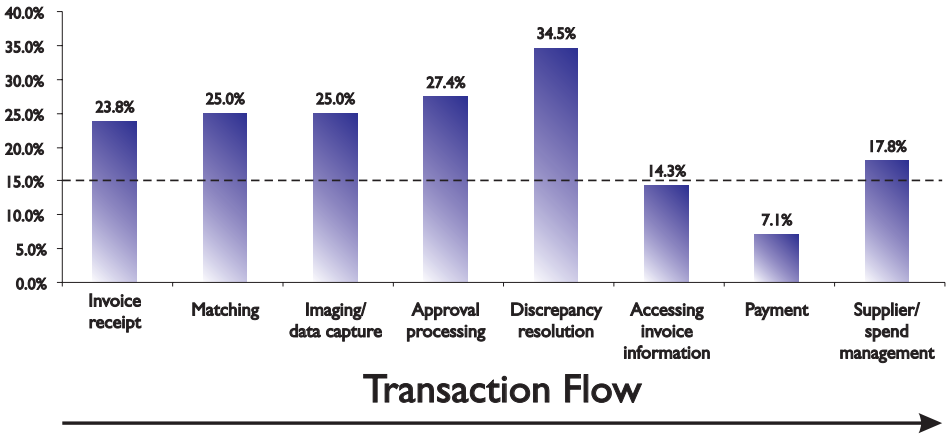
FIGURE 1: PAIN POINTS IN THE INVOICE RECEIPT-TO-PAY CYCLE

Respondents to our *2004 Financial Automation Survey* were asked to rate the pain that eight different activities cause their accounts payable department on a scale from one (no pain) to five (maximum pain). Percentages reflect answers of four or five.



Asked about the relevance of a range of technology tools and potential initiatives to their payables automation strategy, 40.0 percent of respondents said that workflow tools to automate approval processing are critical (see Figure 2). Solutions for Web-based invoice receipt and imaging and document management were close behind with 32.1 percent and 27.4 percent of respondents respectively deeming them essential.

However, to squeeze more paper from the invoice receipt-to-pay cycle these solutions must overcome the challenge of converting invoices into standard electronic documents that enterprise and accounting systems can understand. In the past, the highly variable nature of invoices has made this impossible. Today, solutions are leveraging technology for processing so-called semi-structured documents to bridge this gap.

FIGURE 2: CURRENT INTEREST IN IMAGING AND WORKFLOW SOLUTIONS

Respondents to our annual survey were also asked to rate the importance of nine items to their organization's payables automation strategy for the next 18 months on a scale from one (not important) to five (critical). Percentages reflect answers of four or five.

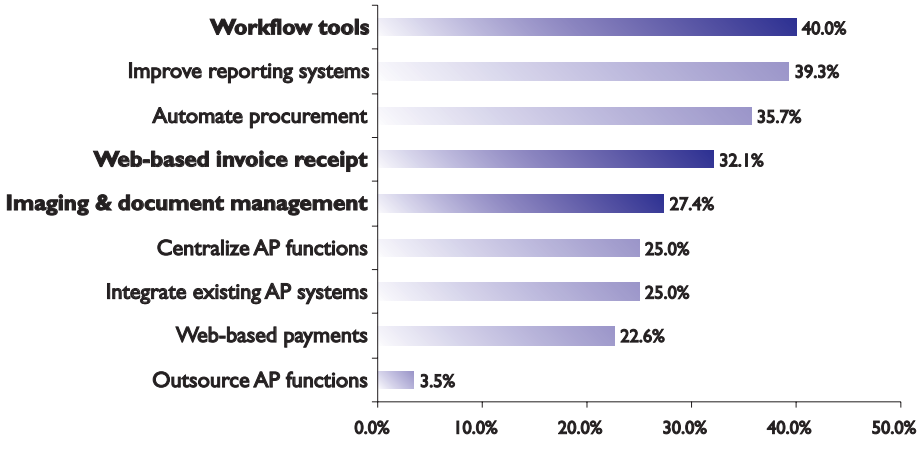


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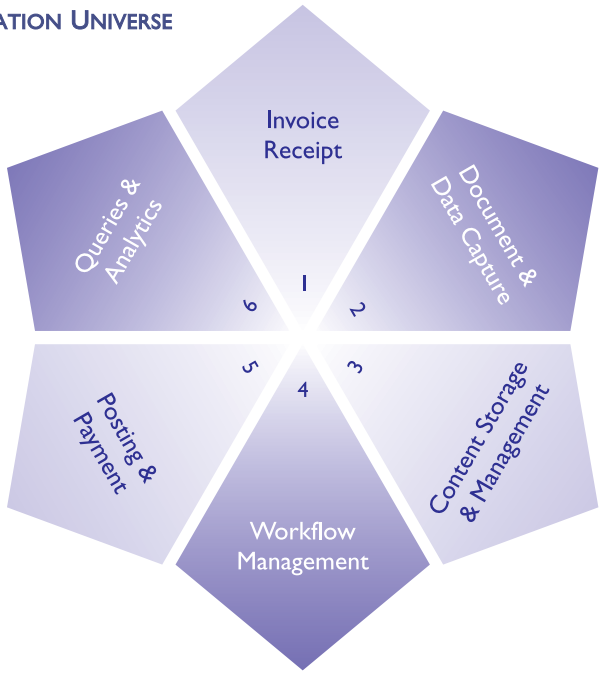
FIGURE 3: THE IMAGING AND WORKFLOW AUTOMATION UNIVERSE



IWA solutions improve the invoice receipt-to-pay cycle by streamlining how organizations receive, manage, and approve invoices.

What is Imaging and Workflow Automation?

Imaging and Workflow Automation (IWA) solutions streamline the invoice receipt-to-pay cycle by enabling organizations to convert paper invoices into digital images, store them in a Web-enabled repository for rapid retrieval, and extract data from them to enhance approval processing. IWA solutions may provide document and data capture, workflow, or both in order to create an end-to-end imaging and workflow solution that integrates with enterprise and line of business applications (see Figure 3). We define the components of the IWA universe as follows:

- **Invoice Receipt.** The steps required to receive and prepare invoices for capture, including removing staples, repairing tears, photocopying small items onto 8 x 11 paper, performing initial data entry, and sorting (e.g. by source or cost center). Depending on the solution and the source of the invoice (e.g. mail or Web), Invoice Receipt may be manual or automated.
- **Document and Data Capture.** The process of converting paper invoices and transaction-related documents, such as proofs of receipt, into digital images and index data. Specific steps include scanning, image enhancement, indexing, validation, and data extraction based on bar codes, Optical Character Recognition (OCR), Optical Mark Recognition (OMR), Intelligent Character Recognition (ICR), or manual data entry.
- **Content Storage and Management.** Refers to the delivery, storage, management, and disposition of electronic documents and data. Depending on the complexity of the solution, this may include Enterprise Content Management (ECM) or Business Process Management (BPM) capabilities

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for managing the transactional content across its entire lifecycle.

- **Workflow Management.** The routing of tasks according to pre-defined business rules and based on individuals' roles and access rights. Workflow provides a tool to track and manage approval processing at the invoice and aggregate level. Common features include automatic notifications to users when specific actions are required (e.g. invoice approval), reminder messages, and escalation procedures based on approval hierarchies.
- **Posting and Payment.** The steps to post approved transactions to the general ledger within an organization's Enterprise Resource Planning (ERP) or accounting system. IWA solutions do not extend to payment, but they do deliver critical transactional data into financial systems for the purpose of generating payments.
- **Queries and Analytics.** The process of analyzing key invoice receipt-to-pay metrics. Queries & Analytics includes the generation of standard and ad hoc reports detailing invoices pending approval, unpaid invoices past due, average invoice processing time, and so forth. Supervisors can also monitor individual users' actions for quality control and load balancing.

The Different Flavors of IWA

All IWA solutions share the goal of improving organizations' management of their invoice receipt-to-pay processes. However, not every solution follows the same approach or provides equivalent functionality at each step of the process. Therefore, accounts payable professionals should understand the major forms that IWA can take.

BACK-END DOCUMENT CAPTURE AND ARCHIVAL

The simplest use of an IWA solution is for back-end imaging and archival. Operators batch and scan paper invoices and other transaction-related documents at the end of the invoice receipt-to-pay process. Accounts payable staff then index the invoices manually by using a split-screen computer view to key information from invoice images into electronic forms. Once indexing is complete, the document images are stored in an electronic repository for retrieval based on the searchable fields created.

Historically, accounts payable departments have used IWA solutions in this manner to eliminate physical storage requirements, facilitate document retrieval for discrepancy resolution and audits, and improve responsiveness to supplier inquiries. However, since scanning and indexing occur *after* approval processing, the invoice receipt-to-pay cycle continues to follow its current manual, paper-intensive course. Consequently, IWA solutions for back-end imaging and archival provide limited benefits rather than radical process improvements.

FRONT-END DOCUMENT AND DATA CAPTURE

Going one step further, accounts payable departments can deploy an IWA solution at

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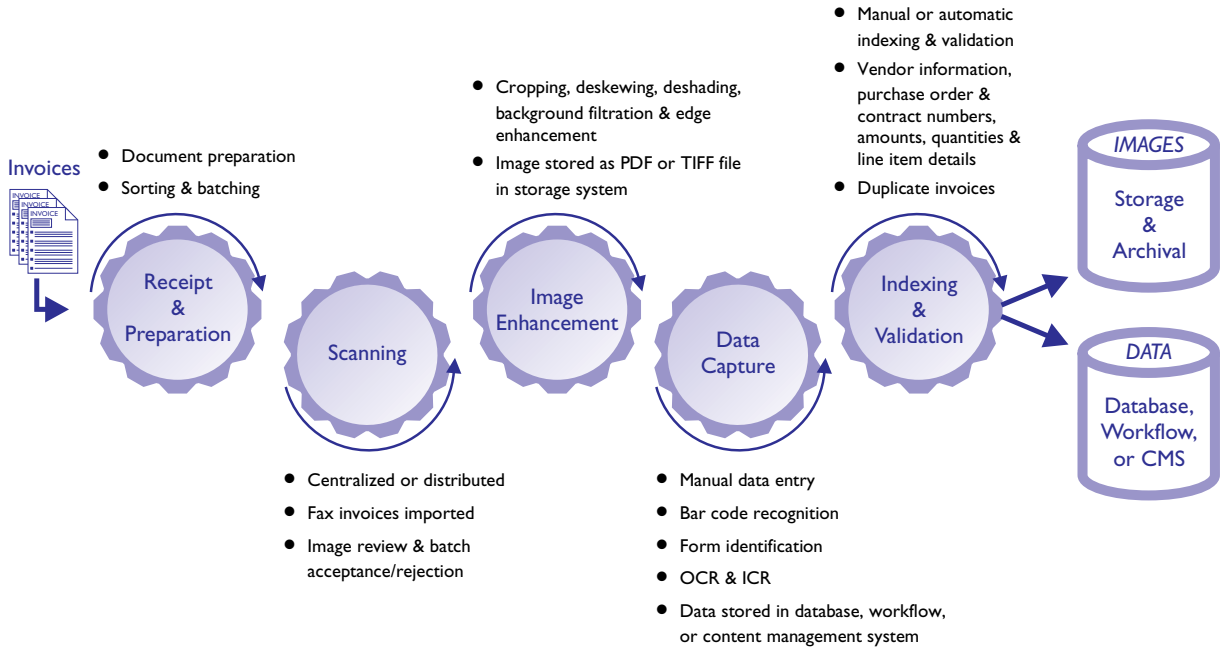
FIGURE 4: A TYPICAL FRONT-END DOCUMENT AND DATA CAPTURE PROCESS



When document and data capture are performed at the front end of the invoice receipt-to-pay cycle, paper invoices are converted into electronic images that are stored in a central repository. Data is then captured from the invoice images and transferred to a database or workflow or content management solution to facilitate approval processing.

the front end of the invoice receipt-to-pay cycle. In this scenario, paper invoices are scanned remotely or at a central processing facility upon receipt. Information is then extracted from the invoice images to facilitate internal review and approval (see Figure 4). Front-end document and data capture represents a quantum leap over back-end imaging because it sets up genuine improvements to the invoice receipt-to-pay cycle.

However, front-end document and data capture poses greater challenges than back-end imaging. The ability of the scanning operation to accommodate production level invoice volumes becomes critical, as without sufficient capacity it will starve every downstream step in the approval process. Invoice image quality also takes on greater importance due to the implications of poor quality images for the data capture process. This may not be an overriding concern if data capture is performed manually (i.e. accounts payable staff key information from invoice images into computers), but it is critical when technology is used to automate the process.

Front-end data capture is further complicated by the non-standard nature of invoices. To understand why, consider the difference between a structured and unstructured document (see Table 1). With a structured document, such as an employment application, certain information always appears in the same location on the page. For example, the applicant's name may always appear in the same box in the same place on

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TABLE 1: CHARACTERISTICS OF STRUCTURED AND UNSTRUCTURED DOCUMENTS

Document Type:	Structured	Unstructured
Document characteristics:	• Familiar data appears in familiar places	• Unfamiliar data appears in unexpected places
Examples:	• Credit card application • Medical claim form	• Hand-written note • Web content
Ideal data capture method:	• Template-based OCR/ICR	• Pattern recognition technology based on scripted rules
Use by accounts payable:	• Low volume operations • Relatively few invoice formats	• High volume operations • Many invoice formats

the form. In contrast, an unstructured document, such as a hand-written note, has precisely the opposite characteristics—unfamiliar information can appear in unexpected places.

Invoices share some of the characteristics of both types of documents. On the one hand, individual suppliers' invoices feel a lot like structured documents because they have a consistent appearance from one billing period to the next. On the other hand, viewed in aggregate by an accounts payable department that receives thousands of invoices each day in a myriad of different formats, they seem more like unstructured documents. Therefore, invoices are usually considered semi-structured documents.

Until recently, invoices' semi-structured nature hindered efficient data capture. To address the problem, some accounts payable departments turned to Optical Character Recognition (OCR) solutions, which use an optical-sensing device to read machine print and are widely used by paper-intensive industries to process structured forms. However, these solutions typically rely on templates to recognize each unique document type and guide the recognition engine to the data to be extracted. This poses a major problem to an accounts payable operation that receives hundreds of different invoices. Today, a new breed of OCR solution that uses pattern recognition technology and scripted rules to perform data capture without templates is closing this gap.

Once invoices have been scanned and their images enhanced to optimize recognition, the OCR engine creates a grid of numbers and letters on the page. If it recognizes the invoice from the past based on the content and location of key information, then it assigns the appropriate vendor ID number. If it does not recognize the invoice, then it prompts an accounts payable staff member to add the vendor to the vendor master list in the ERP or accounting system.

Next, the recognition engine uses scripted rules to locate, extract, and validate the desired information. Locate rules help it populate the designated data fields by telling it

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how to find the information (e.g. look for Invoice Date and then search to the right). Validation rules ensure that the data extracted is valid and accurate by directing the solution to compare specific fields against the information held in the appropriate system (e.g. purchase order numbers against the purchasing system).

The final step is for an accounts payable staff member to examine the recognition results. Many solutions display the invoice image and the data that the OCR engine has seen side-by-side on a computer screen. If there is a failed validation or a low confidence character recognition, then that field is highlighted for acceptance or correction by the staff member. If there are none, then he or she clicks to the next invoice. When this is complete, the information is uploaded to the ERP or accounting system.

Used for front-end document and data capture, IWA solutions provide greater benefits than back-end imaging. Scanning invoices at their point of receipt—either in the field or at a central location—removes paper from the process and ensures that critical transaction-related documents are committed to secure storage immediately. Performing document and data capture at the beginning of the invoice receipt-to-pay cycle also minimizes the time required to enter invoices into queues for processing and payment. Finally, advanced OCR solutions that extract, index, and validate invoice data with minimal human intervention create an automated, error-free process.

FRONT-END DOCUMENT AND DATA CAPTURE WITH WORKFLOW

In their most advanced form, IWA solutions combine front-end document and data capture with workflow capabilities to streamline and automate invoice receipt and approval processing. As a tool for routing and managing tasks across the enterprise, workflow is embedded in most ERP systems. It is also a key component of Enterprise Content Management (ECM) and Business Process Management (BPM) solutions, which typically offer more comprehensive workflow functionality.

Workflow solutions enable accounts payable departments to define how different types of invoices are processed (see Figure 5). Simple invoices, such as utility bills, can be matched against the contract price, approved, and posted to the accounting system for payment automatically. Purchase order invoices can be matched against the purchase order and receipt documents and routed to the person or people who must approve them. All tasks are routed based on pre-defined business rules, and user roles and access rights can be set to match the organization's existing approval hierarchy.

Approvers are typically notified via email when invoices require their review and approval. Users click on the hyperlink contained in the email messages and log onto the system to view, code, and approve the invoices online. In the event that an approver does not act within a specified period of time, reminder notifications can be sent or the task can roll up to the next person in the approval chain. Similarly, most workflow solutions provide options to automatically forward tasks to backups when primary approvers are out sick or on vacation. Multiple approvers can be designated for invoices that exceed certain dollar thresholds or must be coded to multiple accounts.

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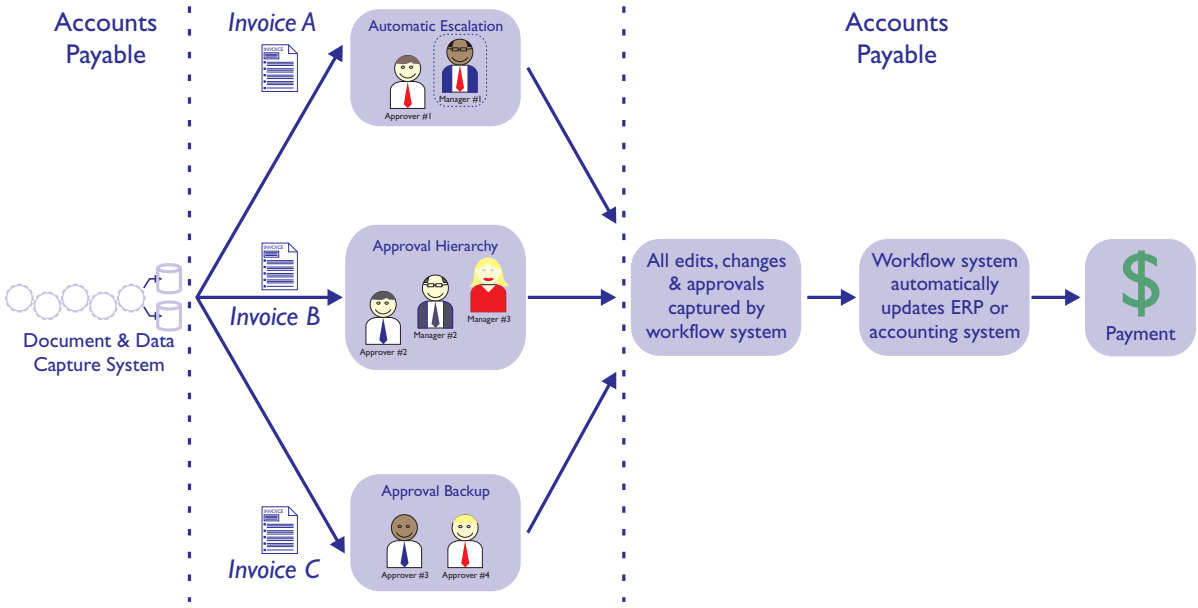
FIGURE 5: A TYPICAL WORKFLOW PROCESS



Workflow systems provide broad options for designing and controlling how action items are routed to individuals within an organization. The figure above uses three invoices to show how some of these tools might work. Invoice A illustrates the use of automatic reminder notifications and escalations to ensure that action is taken within specified timeframes. Invoice B describes the path of an invoice that requires multiple approvals. Invoice C shows the use of designated backups to prevent processing delays due to staff illnesses and/or vacations. In each of these cases, the workflow system would capture every action taken by every user to provide a comprehensive—and granular—view of the invoice receipt-to-pay cycle.

Workflow-enabled IWA solutions automate more of the invoice receipt-to-pay cycle than standalone document and data capture solutions. They also deliver auditing, reporting, and management benefits that document and data capture solutions alone cannot provide. Workflow solutions track every action taken by every user on every invoice, providing a complete audit trail for every user and transaction. Users can respond more quickly and effectively to supplier inquiries, while supervisors gain the ability to track the status of individual invoices, view the work of individual approvers, or monitor the entire approval process. Senior managers will appreciate the ability of a workflow solution to ensure their organizations' compliance with Sarbanes-Oxley.

The Benefits of IWA

Accounts payable departments that utilize an IWA solution experience a wide range of benefits, depending on the type of solution they deploy (see Table 2). In general, they benefit in the following three areas:

» **Processing Efficiency.** Back-end imaging and archival solutions accelerate transaction research, discrepancy resolution, and response times to sup-

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TABLE 2: THE BENEFITS OF IMAGING AND WORKFLOW AUTOMATION

Back-end Document Capture & Archival	Front-end Document & Data Capture	Front-end Capture & Workflow
• Alleviates lost & misplaced invoices • Allows simultaneous access to invoice information • Simplifies discrepancy resolution, transaction research, audits & supplier inquiries • Provides secure electronic storage for invoices • Reduces storage costs	• Removes paper where it enters the organization • Reduces manual data entry & FTE requirements • Speeds data collection & entry into financial systems • Accelerates invoices' entry into approval queues • Allows image-enabled approval processing	• Streamlines & accelerates approval processing • Enhances prompt payment discount capture & reduces incidence of late fees • Provides transaction-level visibility into invoice receipt-to-pay activities • Tightens overall control over approval processing

plier inquiries by allowing accounts payable staff to retrieve invoices from an electronic repository rather than a paper filing cabinet or archive. As a front-end application, IWA solutions contribute further to processing efficiency by removing paper at the point where it enters the organization. Invoices enter processing queues more quickly and their images can be used to accelerate their approval. Maximum efficiency is achieved when imaging and workflow are used together, as review and approval tasks can be routed automatically to individuals distributed across the organization based on clearly defined and highly customizable business rules.

» **Lower Costs.** IWA solutions drive down document storage costs by substituting electronic repositories for filing cabinets and effectively eliminating the need for long-term storage space. As the cost of electronic storage continues to fall, these savings will become more pronounced. Second, IWA solutions enable an accounts payable operation to trim its full-time equivalent (FTE) requirements. While never a pleasant topic, these savings can be substantial. Third, IWA solutions provide a tool to eliminate late payment penalties and capture a higher percentage of prompt payment discounts. Powerful buyers may take discounts whether they are eligible for them or not, but this is a compelling benefit for smaller buyers.

» **Enhanced Visibility and Control.** IWA solutions provide secure storage for invoices and support corporate policies and statutory requirements for document retention and disposal. Anytime access to invoice images facilitates reporting and analysis by eliminating the need for physical documents. In a front-end role, IWA solutions improve the speed and accuracy of decision-making by allowing users to access accurate, up-to-date information from any location using a Web browser. For example, a supervisor could use an IWA solution to track the work of an individual or group of approvers to identify bottlenecks and optimize approval processing.

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AnyDoc Software

About AnyDoc Software

AnyDoc Software is passionate about data capture and management. In fact, the company changed its name from Microsystems Technology to AnyDoc Software in April 2003 to reflect its focus on providing data capture and management solutions for all types of documents. Today, AnyDoc Software is a privately held company of approximately 80 people with offices in Tampa, Florida and Zug, Switzerland. According to its management team, the company has been consistently profitable and is free of bank loans, external debt, and venture capital.

AnyDoc®INVOICE™ is AnyDoc Software's solution for the accounts payable market. It comprises three of the company's established software products—*CAPTUREit*™, *OCR for AnyDoc*™, and *BROKERit*™—and provides integrated scanning, capture, and storage for invoice data and images. *AnyDocINVOICE* is a modular solution, meaning that customers can adopt any or all of its components based on their needs. Customers can also use AnyDoc Software's modules for inter-application data sharing and network optimization to further customize the solution.

AnyDocINVOICE is sold by technology integrators and value-added resellers, with AnyDoc Software providing behind-the-scenes technical, sales and marketing support. AnyDoc's Business Development Managers working out of regional offices uncover and educate prospects,

AnyDoc Software's Posting & Payment Tool—EXCHANGEit™

AnyDoc Software provides a universal tool, EXCHANGEit™, to post transactions to most ERP and Financial Systems' databases. By simply selecting the destination system/database, the user can quickly map the transactions generated by OCR for AnyDoc to their ERP, Financial, and/or Document Management System. Then, the user can set it up on a schedule for an unattended posting.

The tool is quick and intuitive, and if the need arises to modify it due to a new version of the ERP, Financial, and/or Document Management System, modification is a simple and effortless task.

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and provide support throughout the sales cycle. Top resellers through AnyDoc Software's Reseller Program include Document Conversion Associates, FormScan, ImageSoft, and KeyMark.

More than 2,500 organizations use AnyDoc Software's core product, *OCR for AnyDoc*. Currently, seventeen use *AnyDocINVOICE* for their accounts payable operations, including Greif, Inc., Lifeway, American Electric Power, and LeasePlan. During the coming year, AnyDoc Software will focus on educating accounts payable managers across all industries about the benefits of *AnyDocINVOICE*, while targeting vertical markets where it has experienced early traction.

AnyDocINVOICE

AnyDoc Software offers *AnyDocINVOICE* as a bundled solution for accounts payable operations. It consists of three of the company's most powerful products and is flexible enough to be tailored to customers' precise needs. *CAPTUREit* enables users to scan invoices and other transaction-related documents locally or remotely and then securely transmit the information to a central location via the Internet for data extraction by *OCR for AnyDoc*. *BROKERit* completes the solution by providing back-end electronic document storage and retrieval capabilities.

Imaging and Recognition:

CAPTUREit provides the front-end scanning capabilities for *AnyDocINVOICE*. Individuals working locally can use *CAPTUREit* for ad hoc scanning, while remote users can send scanned invoices over the Internet to a central location for processing. *CAPTUREit* can accommodate any color or bi-tonal document and is scalable to meet the needs of accounts payable operations that must scan thousands of documents every hour. Customers can configure the software to route scanned images to *OCR for AnyDoc* for automated information capture or directly to *BROKERit* or an electronic storage and retrieval system.

With *CAPTUREit*, invoices can be captured and scanned directly into TIFF or PDF format and emailed as attachments. All users can view, append, reorder, and insert new documents into the system, while remote users have the flexibility to scan documents into one or more batches and securely upload their images to a central repository at their convenience or on a pre-designated schedule. In either case, a built-in quality assurance feature allows the user to ensure that each scanned document results in a high quality image. *CAPTUREit* also supports the TWAIN scanning interface, enabling users to get the full benefits of their preferred scanner without spending for additional software or hardware.

Data is extracted from scanned documents by the second piece of *AnyDocINVOICE—OCR for AnyDoc*. It utilizes keywords and filters, rather than time-consuming manually created templates, to find the invoice data specified by the client (e.g. invoice number, total amount, due date, etc.) and then uses OCR technology to capture the data. Prior to data capture, the system performs image enhancement and character regeneration to remove any background clutter that may impede automated data recognition via OCR.

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OCR for AnyDoc applies the customer's business rules to validate the extracted invoice data. It flags questionable characters or fields for correction or acceptance by the operator and can be configured to hold high dollar invoices for supervisor approval. Further, the system helps ensure proper payments by verifying vendor information and comparing purchase order amounts to amounts invoiced. In the final step, *OCR for AnyDoc* creates an ASCII output file of the validated, corrected, and verified data for further processing.

One of *OCR for AnyDoc's* most powerful features is its ability to recognize invoices from the same vendor and remember the actual location of the data required for extraction. As this automated learning process occurs, the system gets faster and processing costs decline further. If a supplier changes its invoice format, then *OCR for AnyDoc* simply searches for the data it needs and begins relearning the new invoice format. According to AnyDoc Software's development team, accounts payable departments have used *OCR for AnyDoc* to increase the invoice processing productivity of their operators by as much as fivefold.

The third component of *AnyDocINVOICE—BROKERit*—provides an electronic document storage and retrieval system. Users can index, archive, retrieve, display, annotate, print, fax, email and manage images and data from their desktops or remotely via the Internet. *BROKERit* can be set up to mirror an accounts payable department's current filing system, and system administrators have the capability to determine individual users' access rights down to the field level.

For the exception documents, users can optionally scan documents directly into *BROKERit*, eliminating the need to import images from another application. Local and remote users can both query *BROKERit* based on criteria like customer name, invoice number, or date to gain quick access to the data they need. Moreover, *BROKERit* links data and documents, meaning that queries return complete document images. Finally, since *BROKERit* features Web-based imaging, users can access images over the Internet whenever they want.

Implementation is quick and painless. Assuming an average project where eight fields of data are being captured and 2-3,000 invoices being processed daily, it would take AnyDoc Software as little as one day to determine the cost of the work, three to five days to develop the solution, and depending on the extent of the client's business rules, three to five days to implement it. Beyond this, the client's operators require two to three hours of training, which is delivered on site after the system's implementation. Supervisors require one to two hours of additional training to learn how to handle exceptions, reporting, and management issues.

Two factors drive the price of *AnyDocINVOICE*—the number of pages on which a customer searches for and finds data and the customer's use of the solution to capture either invoice index/summary or line item fields. The price of line item level data is 25 to 30 percent higher, reflecting the client's use of additional sophisticated software not needed for the simpler index/summary fields. Overall, a firm processing 10,000 invoices annually would spend $6,000-9,000 for the solution, while a company processing one million invoices would spend $200,000-250,000, exclusive of implementation and maintenance costs.

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Outlook

AnyDoc Software differentiates itself from other IWA vendors based on its ability to provide integrated solutions for structured and unstructured forms processing. This technology can be applied to almost any document, not just invoices. The company's advantage in this area rests squarely on its expertise in OCR technology, and is best seen in *AnyDocINVOICE's* ability to "learn" vendor invoice formats. AnyDoc Software's strength in this area is also apparent from *AnyDocINVOICE's* advanced capabilities—for instance, to process invoices of varying page lengths without requiring operators to batch them based on page length and without inserting patch pages between each multi-page invoice.

We like the flexibility that *AnyDocINVOICE* provides for scanning, capturing, validating, and storing invoice images and data. Customers can use any or all of *AnyDocINVOICE's* components, integrate their existing IWA systems, and incorporate other AnyDoc Software products as they choose. *AnyDocINVOICE* was not designed to provide workflow functionality, but AnyDoc Software makes it easy for customers to integrate the workflow system of their choice. Moreover, *AnyDocINVOICE's* current customers have demonstrated that the solution can scale to meet the needs of high volume accounts payable operations (see Case Study on next page). Based on AnyDoc Software's tight focus on data scanning, extraction, and storage, proven ability to deliver *AnyDocINVOICE* as an integrated solution, and impressive customer list, we believe that it has found a winning formula.

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Case Study: LifeWay Christian Resources

LifeWay Christian Resources is the non-profit publishing agency of the Southern Baptist Convention (SBC). Established over a century ago to provide learning materials and guidance to church leaders and members alike, it serves SBC's 16 million members and other evangelical Christian groups around the world through 118 stores, direct mail operations, denominational and trade publishing, an e-store, and two conference centers. It employs roughly 2,100 people and had 2003 revenues of $414 million.

In 1999, LifeWay's prospects for strong growth concerned Shayne Gilpin, Manager, Accounts Payable. At the time, its retail accounts payable units employed 30 people to process and pay 250,000 invoices received annually for store merchandise. LifeWay generally relied on manual, paper-based methods to process invoices, but data entry was a particular problem that required a quarter of every employee's time. From where Mr. Gilpin stood, it seemed that LifeWay either would have to hire at least 10 more clerks to accommodate the projected growth or find a way to automate the data entry process.

Under Mr. Gilpin's leadership, LifeWay pursued a two-part strategy. First, it focused on converting its highest volume suppliers to EDI, eventually persuading 30 suppliers that accounted for 65 percent of its invoice volume to use EDI. To address the remaining 35 percent of invoices arriving in paper form, Mr. Gilpin began to explore other technology solutions. Scanning looked promising based on his knowledge of a local company that was using it successfully, and the idea stuck with him. After six months of research a chance call from AccuImage—a valued-added reseller of AnyDoc Software's data capture and management solutions—put him in touch with LifeWay's eventual solution provider.

After reviewing the business case with the Director of Finance and getting funds appropriated, Mr. Gilpin led LifeWay's adoption of a package that provided scanning (including hardware), structured forms processing, image archival, and workflow at a cost of $150,000. LifeWay went live with the solution in October 2000, but soon found that it took a couple of days of its IT support person's time to create a template for each supplier whose invoices it wanted to automate. In 2002, therefore, it agreed to serve as a beta site for AnyDoc Software's new structured and unstructured forms processing product—*AnyDocINVOICE*—at an additional cost of $75,000. In exchange for helping AnyDoc Software fine-tune the solution over four months, LifeWay gained an advanced forms processing capability that freed it from the need to create templates and eliminated the need for additional A/P clerks.

With the new system, a mailroom worker scans incoming invoices. A second person then uses OCR for AnyDoc to verify 100 percent of the images to ensure that only accurate data enters LifeWay's accounting system. Next, workflow sends the information to the accounting system for three-way matching and indexing. Users can leverage the Application Extender to call up invoice images at their desktops and annotate, print, and email them. LifeWay still retains all of its paper invoices, sending them to a paper archive. All told, LifeWay has used AnyDoc Software's products to achieve the following benefits:

- ROI in less than one year and annual cost savings of $280,000;
- The conversion of 25 percent of invoices from paper to electronic form;
- A 46 percent reduction in the fully loaded cost of an invoice from $3.50 to $1.90;
- Steady FTE requirements even as annual invoice volume has tripled to 800,000.

Mr. Gilpin is justifiably proud of these achievements, but he does not consider his work to be done just yet. LifeWay still processes ten percent of its invoices in paper form, and it is determined to find a way to use scanning and EDI to convert more of them to electronic form. Given their track record with payables automation so far, the smart money says that Mr. Gilpin and LifeWay will succeed.

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Selecting an IWA Solution

Imaging, Workflow or Both?

One of the first questions that accounts payable professionals must answer when investigating IWA is whether a tightly focused or comprehensive solution would better meet their needs. The benefits of back-end imaging and archival, front-end document and data capture, and front-end capture with workflow are described in the first section of this report and will not be discussed here. However, accounts payable technology buyers should keep the following factors in mind when making this decision:

- **Financial Automation Goals.** There is an IWA solution to meet every need, but identifying the ideal solution requires an organization to clearly understand what it hopes to achieve from its adoption. Organizations that have been slow to adopt other financial automation technologies but want to take an incremental step forward should consider back-end imaging and archival as a low-risk starting point. On the other hand, organizations that are comfortable with technology and want to accelerate the pace of improvement in their invoice receipt-to-pay cycle should think about a front-end application that will provide both imaging and workflow capabilities.
- **Adoption Readiness.** Every organization does not stand an equal chance of succeeding with IWA. Differences in culture, financial resources, and human capital mean that certain organizations are more likely to succeed. Further, even if these factors are in place, an organization still may find itself hobbled by a lack of senior management support or hemmed in by its prior technology investments. Individuals investigating IWA should determine how their organizations stack up in each of these areas. As a rule of thumb, an organization's overall use of financial automation technologies relative to its peers provides a rough indicator of its readiness to adopt IWA, especially in its more challenging front-end form.
- **Process Complexity.** The higher the complexity of an accounts payable operation, the greater the payoff from automating invoice receipt and approval processing. Accounts payable professionals should consider the number of suppliers and invoice formats they receive, as well as their overall invoice volume and the complexity of their average invoice when evaluating IWA solutions. The structure of their accounts payable operation (i.e. decentralized vs. centralized) and the steps required to process, approve, and pay invoices are also critical and will have a direct bearing on their choice of a solution.

AnyDoc Software has designed *AnyDocINVOICE* primarily with the front-end of the invoice receipt-to-pay cycle in mind. The solution accelerates invoice receipt by allowing remote users to scan invoices in place and send the images electronically to a central location for processing. Paper is eliminated where it enters the organization

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and invoices join approval queues more quickly. *AnyDocINVOICE* really shines in the area of document and data capture due to its incorporation of advanced OCR technology that utilizes keywords and filters rather than time-consuming templates to find invoice data. This is a powerful differentiator, as it enables the solution to recognize invoices from the same vendor over time and, therefore, to locate data for extraction more efficiently.

AnyDocINVOICE also provides solid options for retrieving, displaying, annotating, and printing images and data. Users can scan documents directly into the electronic document storage and retrieval component of the solution and can query and access images and data from their desktops or the Internet. Data and documents are always linked so that queries return complete document images. However, AnyDoc Software has deliberately stopped short of providing workflow functionality. Instead, it leaves the choice of a workflow solution up to its customers while ensuring that *AnyDocINVOICE* integrates with whatever system they might select.

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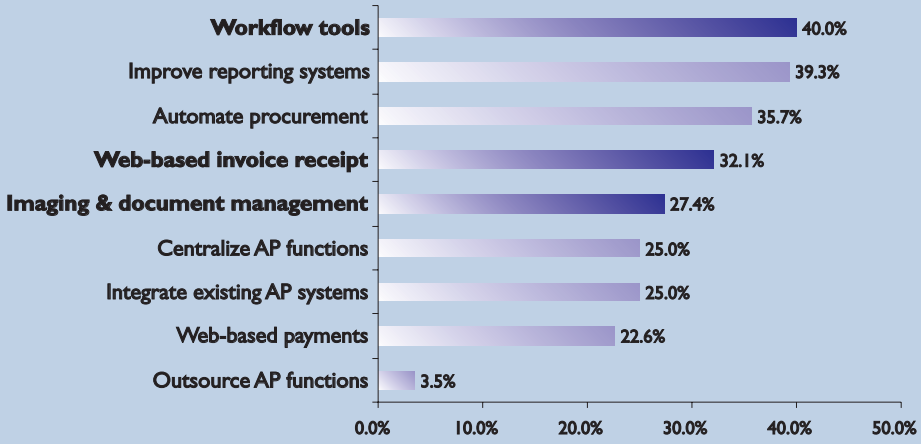
Web Invoicing as an Alternative

Responses to our *2004 Financial Automation Survey* pointed to more than a strong interest in workflow tools and imaging and document management solutions. They also revealed that accounts payable professionals are highly interested in the Internet's potential to smooth the invoice receipt process (see figure below). This is no surprise, given the ubiquity of the Internet and near universal acceptance of email as a "killer app," but what does it mean for those seeking IWA solutions?

On a scale from 1 to 5, where 1 is the lowest score and 5 is the highest score, how important are the following to your organization's payables automation strategy for 2004? *(Percentages reflect answers of 4 or 5)*



Interest in Web invoicing goes hand-in-hand with the emergence of a different, yet similar, set of technology solutions that leverage the Internet to streamline invoice receipt and a whole lot more. Referred to as Electronic Invoice Presentment and Payment (EIPP), e-Invoicing, or simply Web invoicing solutions, they incorporate functionality for buyers and suppliers into a single Web-enabled solution. Web invoicing solutions have been around since the mid- to late 1990s and are roughly as mature as IWA solutions in their more cutting edge form.

The key difference between Web invoicing and IWA is that Web invoicing solutions are explicitly designed to facilitate external buyer-supplier interactions. Rather than focus on the invoice receipt-to-pay process, they unite the buyer's purchase-to-pay process with the supplier's order-to-cash cycle into a larger order-to-settlement cycle. Given their goal of collaboration, this is critical to offering both parties an attractive value proposition and, therefore, an incentive to participate in a solution.

Buyers are usually interested in Web invoicing for the same reasons they are drawn to IWA—it offers a way to eliminate time and waste from the invoice management process. Suppliers, on the other hand derive significantly greater value from Web invoicing. Depending on the solution, they may be able to submit invoices electronically to the buyer in half a dozen ways. Functionality is usually also available for resolving discrepancies and accessing up-to-date invoice and payment status information online. These features hold out the promise of reducing invoice presentment costs (including reprints), accelerating discrepancy resolution, and increasing predictability about cash inflows

Ultimately, Web invoicing and IWA both seek to eliminate paper from transactions. They simply have evolved from different starting points. However, they will grow closer to one another as the Internet solidifies its position as a conduit for business communication. Individuals investigating IWA solutions need not be side-tracked by Web invoicing, but they would do well to keep its parallel rise in mind.

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Conclusion

The market for IWA solutions will grow rapidly over the next five years. Worldwide spending on IWA solutions in accounts payables functions will increase from $1.98 billion in 2004 to $3 billion by 2009, a compound annual growth rate (CAGR) of 10.7 percent (see Figure 8). During this five-year period, spending on document and data capture and workflow solutions will increase at a CAGR of 7.9 percent and 21.6 percent respectively.

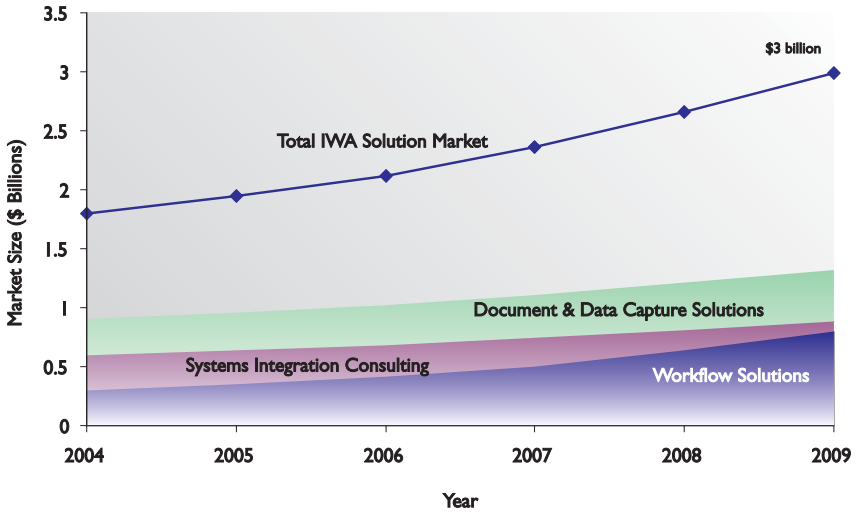
Accounts payable departments' share of the current $7.7 billion IWA pie, while small today, will expand as organizations adopt IWA solutions to achieve their payables automation objectives and adapt to changes in the regulatory environment (i.e. Sarbanes-Oxley and Check 21). The following four factors will also shape the evolution of the IWA market:

» **Advanced OCR will be a catalyst for adoption.** Solutions that rely on template-based OCR to find and extract data from invoices have experienced mixed success. Sufficient for an accounts payable department that receives invoices in just a handful of formats, they are inadequate for high volume operations that see a myriad of formats every day. As a result, the application of IWA concepts to improve invoice management has suffered. In the future, industrial strength solutions that use full-page OCR to extract data without templates will be the key that unlocks adoption.

» **Front-end solutions will prevail.** IWA solutions are beneficial in all of their forms. However, front-end solutions preserve the benefits of back-end imaging and archival while providing additional advantages in the form of lower costs, higher processing efficiency, and enhanced visibility

FIGURE 6: FORECASTED GROWTH OF THE WORLDWIDE IWA SOLUTION MARKET

The world market for IWA solutions in AP will increase at a compounded annual rate of 10.7 percent over the next five years. By 2009, total spending will top $3 billion.



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and control. They can be used to replicate and accelerate existing work patterns or to design entirely new electronic processes. Organizations will continue to use IWA solutions in both a back- and front-end capacity, but the latter will eventually prevail.

» **Multiple solution models will co-exist.** There is not a single model for IWA. Solutions are available in software form, as well as on an outsourced basis. Likewise, some vendors emphasize a modular "mix-and-match" approach while others concentrate on providing a set solution. There is also tremendous variability in terms of solution focus. Some vendors focus tightly on specific aspects of the invoice receipt-to-pay cycle, while others strive to provide IWA functionality as part of a larger ECM or BPM offering. Industry consolidation notwithstanding, this diversity will continue.

» **IWA and Web invoicing will cross-pollinate.** IWA solutions have evolved to meet organizations' internal needs around invoice receipt and management. As the Internet expands into all corners of business communication, however, the distinction between internal and external breaks down. This is already affecting IWA, thanks to the rise of Web invoicing solutions that provide similar functionality and are explicitly designed to facilitate buyer-supplier collaboration. Both types of solutions will flourish for years to come, but cross-pollination is bound to occur. Ultimately, accounts payable departments will benefit from this process as IWA solutions incorporate better options for invoice receipt, approval processing, and discrepancy resolution that provide both control and collaboration.

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About PayStream Advisors

PayStream Advisors is a technology research and consulting firm that improves the way companies plan, evaluate, and select emerging technologies to achieve their business objectives. PayStream Advisors assists clients in sorting through the growing complexities of IT applications related to financial automation with the goal of making objective, analytical, and actionable recommendations. Our clients include leading companies in the financial services, oil and gas, telecommunications, and waste management industries. Wherever financial automation technology is an issue, PayStream Advisors is there to help. For more information, call (704) 523-7357 extension 222 or visit us on the Web at www.paystreamadvisors.com.

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