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## Cut the Cost of Paying Invoices

**Many form based processes have been moved online or automated with imaging tools, yet paying invoices remains a labor-intensive data-entry headache... for most companies. Pioneers including Rent-A-Center, USI Energy and accounts payable firm PRG are using intelligent document recognition technologies to automate data capture and processing of variable invoices.**

by **Ralph Gammon**

No two companies handle the management and payment of invoices the same way. While other typical forms-based processes have been put online or scanned and automated with forms processing software, invoices remain a manual data entry problem. Most organizations deal with a wide variety of suppliers, and invoicing procedures aren't under their control. Because layouts vary from document to document, invoices have been nearly impossible to automate.

In recent years, document and data capture vendors have been developing sophisticated recognition technologies that can learn to recognize and gather specific data, even when that information appears in different places from image to image. This so-called intelligent document recognition (IDR) technology is finally beginning to see success.

Rental company Rent-A-Center, utility USI Energy, accounting firm PRG Shultz and service bureau HMLS are among the pioneers in using IDR, and, true to form, they all deal with their invoices in a different manner. Their applications range from automating the entry of four or five data points to extracting hundreds of line items to compare against a database of supplier agreements and discounts. If there's one thing all these companies agree on, it's that IDR's time has come as they're all well on their way to gaining returns on their investments.

### **Rent-To-Own Chain Tackles 15,000 Invoices Per Week**

With more than 2,600 stores in the United States and Puerto Rico, Rent-A-Center is the largest rent-to-own chain in North America. For several years, the Plano, TX-based company had been considering a document imaging system to improve access to the 15,000 invoices it processes each week. These invoices deal with services provided to Rent-A-Center's branches, including costs such as utilities,

off-site storage and a host of other items. Invoices are approved at the store level and then sent to the corporate accounts payable (AP) department for payment.

"We had been storing our invoices in boxes off-site, batched by date," explains Kristi Toupal, Rent-A-Center's director of accounting distributions. "When an auditor from one of our vendors requested a copy of an invoice, we had to recall the box and make a photocopy. If the auditor requested a series of invoices sent over the course of several years, it could be a nightmare."

On first examination, Toupal suspected that the labor required for the document imaging steps of scanning and manually indexing images might offset efficiencies gained over conventional document storage and retrieval. "After studying the situation, I realized that the fields we wanted to use for indexing were the same fields we needed to enter into our accounting system to pay the invoices," Toupal says. "By leveraging imaging to automate data entry into our accounting system, we could cost-justify the installation."

Toupal was familiar with traditional, template-based forms processing systems and knew that those would never work for Rent-A-Center because of the variety and variability of invoices encountered. "We have 90,000 active vendors, and we are adding new vendors at a rate of 150 per week," she says.

Toupal was first introduced to IDR-empowered invoice processing software at an accounts payable conference. "I started doing heavy research on all the vendors in the market, [and] I reduced the field to a few competitively priced applications," she says. Last April, Toupal chose Ascent for Payables from Irvine, CA-based Kofax Image Products ([www.kofax.com](http://www.kofax.com)) based on accuracy levels she witnessed in a demonstration of the system.

The system didn't go live until September, but Toupal says that's because "we had some other IT projects going on that may have slowed down the implementation."

Rent-A-Center now uses Ascent for Payables to capture invoice information including vendor name and address, invoice number, amount, invoice date and the number of the store submitting the invoice.

"Ascent for Payables applies optical character recognition to the entire document and then compares the patterns against the patterns of previous invoices," explains Dan Rotelli, president of Business Imaging Systems ([www.bisok.com](http://www.bisok.com)), the Oklahoma City-based reseller that implemented the Rent-A-Center system. "Through this process, the software builds a syntax it can use to find the right information. We can assist it by creating rules."

Toupal estimates that 85 percent of Rent-A-Center's invoice fields are now captured accurately before a validation and correction process is run. "We leverage

#### **Resources**

**Datacap** [www.datacap.com](http://www.datacap.com)

**Kofax** [www.kofax.com](http://www.kofax.com)

**Readsoft**  
[www.readsoft.com](http://www.readsoft.com)

**Top Image Systems**  
[www.topimagesystems.com](http://www.topimagesystems.com)

the information in the accounting system and the knowledge of the AP workers to validate the data and fill-in any fields the software isn't sure of," she says. "Every field is validated by one method or another. Some involve basically a confirmation, while others can involve a look-up."

According to Rotelli, one of the unique elements of the Rent-A-Center application is that the scanning and validation are performed by regular AP personnel and not dedicated data entry clerks.

"We transitioned the staff that was keying information from the paper invoices to scanning and performing the validation with Ascent for Payables," explains Toupal. "Initially, [managers] ran a week of testing. Then we spent about two weeks rolling it out to and training the rest of the AP staff."

Toupal estimates it takes 15 AP personnel 10-15 minutes per day to perform their Ascent for Payables-related duties. "Because of the data-entry efficiencies we've achieved, we've been able to reduce our staff from 25 to 15," she says. "Based on that, we expect to see a return on investment within a year."

Based on the success of the AP installation, Toupal says several other departments within Rent-A-Center are exploring document imaging applications.

## **Beating the Cost of Offshore Data Entry**

Imaging service bureau HMSL of Hertford, England processes as many invoices in one day as Rent-A-Center handles in a week, and they usually gather much more detail from each of those 15,000 invoices. Until recently, HMSL relied heavily on an offshore key-from-image operation for data entry, but escalating costs motivated the company to look for an in-house solution.

"In addition to helping us reduce our costs, we thought a software solution could reduce our turnaround time," explains Sid Vasili, CEO of HMSL.

After reviewing solutions from several leading forms processing vendors, HMSL decided to purchase an eFlow systems from Tel Aviv, Israel-based Top Image Systems ([www.topimagesystems.com](http://www.topimagesystems.com)). "In testing, TiS exceeded the benchmarks that we set, while all the other vendors fell short," says Vasili.

HMLS is using eFlow to capture both header data, such as vendor name, invoice number and date, as well as line-item details. The line-item information is important because HMSL compares it against tables of purchase order information it receives from its clients. If the line items don't match the PO information, HMSL has developed an e-mail workfolder system that notifies the company's customers.

"Typical issues addressed by workfolders include PO overspends and item discounts that haven't been granted," says Vasili. "We also incorporate any questions we have pertaining to the data we are extracting. Including all these exceptions, approximately 76 percent of invoice fields pass through without needing client intervention."

The eFlow system does not rely on templates, but the software does need to be trained. "It takes approximately three invoices from the same vendor to establish a database of document characteristics," explains Vasili. "Until [the training for a particular vendor is complete], we are mainly relying on key-from-image data entry."

HMLS is currently using eFlow to process invoices for eight customers, and Vasili says the level of detail captured ranges from one to hundreds of line items. After the invoice processing is complete, HMSL delivers data to its clients in an XML-file.

"We are now able to turn around jobs in four hours that used to take 36 to 48 hours," he says. "We've been able to double the volume of invoices we are processing per day, and we are slowly phasing out our offshore operations."

HMLS spent approximately \$450,000 on the complete eFlow system and invoice application, and it took approximately 65 days to get everything up and running. "I estimate we've been able to reduce our costs by around \$150,000 per year," Vasili says, adding "we've also been able to increase the amount of business we've gone after."

## **USI Energy Doubles Its Processing Power**

Extracting line-item detail from invoices is also critical to Norcross, GA-based USI Energy ([www.usienergy.com](http://www.usienergy.com)). USI manages utilities for multifamily townhouses and apartment complexes, and services include processing and paying utility bills. The company processes 25,000 paper invoices per month for 14 customers who own some 800 properties throughout the United States.

"We pay bills from about 700 different utility companies," says Dave Richitelli, vice president of energy management services for USI. "The quantity varies by vendor. We might receive one bill from the water company in Smallville, Minnesota. We might receive thousands of bills from an electric company servicing Atlanta."

USI enters the data from these bills into a proprietary software application, which requests funding from its customers. USI posts the data and images of the invoices on a Web site so customers can research their bills directly.

USI first considered using OCR-powered forms processing technology more than three years ago. "Most of the systems available then only worked with structured forms, and that killed the project for us," says Jason Daniel, a business analyst for USI. "Although, all utility bills contain basically the same information, no two [invoices] are alike. Even bills from the same company can have varying pages and line items."

In 2002, Daniel received another request to automate utility invoice data entry. "At that point, I became excited when I realized there were systems available powerful enough to handle our varying bill schemes, and that included scripting capabilities that would enable the customization we required."

USI chose TaskMaster software from Tarrytown, NY-based Datacap ([www.datacap.com](http://www.datacap.com)) in part because it offered Visual Basic scripting. "The other application we looked at had a proprietary scripting language that would have had a much higher learning curve for our programmers," Daniel says.

It took USI four months of development before the system was ready for testing, and Daniel says the toughest challenge was integrating the company's database with the verification process. USI also used scripting to set up rules that it applies to each document it receives from a particular vendor.

"The whole application works off of keywords," Daniel explains. "It will apply OCR to all the characters on an invoice and then start looking for keywords such as 'vendor name,' 'total' and the numbers or characters that follow them. We've created a custom script for the line items that creates zones that pick up the whole area. [The application] parses the zone based on the keywords found."

It takes three to four hours to adjust the system to reach 70 to 80 percent field accuracy on a particular vendor's invoices, according to Daniel. "Once we process a decent number of invoices using these rules, that accuracy rate reaches more than 90 percent," he adds.

USI's invoice system went live last September after three months of testing, and Daniel says the company is using it to process bills from approximately 30 utilities accounting for the highest volume of invoices. "This accounts for approximately half of our total volume," he says. "The application has enabled us to increase the number of invoices we can process per day, per operator from 300 up to 600 or 700."

Daniel says USI will continue to increase the number of vendor bills processed automatically until it reaches a point of diminishing returns. "As the volume from a particular vendor gets lower, it doesn't make as much sense to go through the effort of setting up the rules," he explains, adding that the company then reverts to conventional key-from-image data entry.

## **Auditing What EDI Leaves Behind**

Claimed to be the largest accounts payable recovery auditing firm in the world, Atlanta-based PRG Shultz ([www.prgx.com](http://www.prgx.com)) deals with a lot of invoices for customers, including many of the biggest retailers in North America. Many of these customers handle 85 to 90 percent of their invoices through EDI, but as Joe Massanelli explains, "that remaining 10 to 15 percent can represent a significant number of invoices [and a] significant opportunity for cost recovery."

PRG's business involves examining invoices to make sure they were paid correctly. This includes checking invoices for issues such as double-billing and proper volume discounts. "The line-item data on each invoice is critical to our business," say Massanelli, PRG's senior VP of document management. "We enter data into our proprietary software and compare it against other [customer] line-item detail such as purchase orders and receiving information."

"From a paper invoice, we typically capture whatever heading information is necessary to join the invoice with the data already in our system," says Massanelli. "On the line level, we generally capture, at a minimum, the item number, quantity, unit price, extended cost, and any allowance or discounts by line."

PRG has historically handled data capture through offshore service bureaus, but that turned out to be more expensive and less timely than the company hoped, says Massanelli. In December 2002, PRG brought in three leading invoice processing systems for four months of evaluation. "We measured the applications by ease-of-installation, user interface and performance," says Massanelli, "and in all three categories, [Metairie, LA-based] Readsoft was the highest performer."

Last April, PRG invested "less than \$100,000" in Readsoft's Invoices software. Massanelli says the project is still in pilot phase. "We've run it in three different projects for invoices and supporting documents and found that 75 percent of the time, it has been successful - meaning we were able to produce claims," he explains, adding that the unsuccessful instances were not necessarily attributable to the software. "It may be that we selected invoices in which there was no opportunity for claims, but those pilots have helped us improve our selection criteria."

The Invoices software uses an optimization module to help users set up vendor profiles, a process that takes less than five minutes, according to Massanelli. "If the test invoices do not give the desired results, then adjustments may take another 10-15 minutes," he says. "The complexity of the invoice line items varies. If a vendor always has the line item information consistently on one or two lines, then it is easy. If the number of physical lines per item varies, the process can be a little tricky."

PRG now applies the invoice processing software only in specific cases determined by the volume and complexity of the documents. "If we are talking about a volume of less than 200 invoices from a particular vendor, it's probably more efficient just to key the data overseas," Massanelli explains. "However, many of our customers deal with the same vendors, so once a template is built, we can use it across multiple customers."

Massanelli says he doesn't have firm return on investment figures, but he concluded "there is no doubt the ROI is there." PRG is also using the Invoices software on the prepayment side of its business, where converting paper invoices to electronic data enables EDI-like transaction processing. "Many times, paper invoices are not subjected to the same rules as EDI and, as a result, may be more susceptible to payment errors."

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