

How to transition from manual to **automated** invoice processing

Lost invoices, missed payments, and endless back and forth to fix a simple mistake. Sound familiar? With cloud-native intelligent document processing (IDP), it's possible to be both more accurate and save your company time and money.



Part 1: Why manual data capture is bad for your company

If your company is dealing with lost invoices, complaining vendors, duplicate payments, or overpayments while its Accounts Payable (AP) department is growing, you may want to re-evaluate your manual invoice data capture system.

Simple steps make up a complicated process

The paperless office is an ideal that is stuck in the concept phase – it's not a reality, at least not for most public and private enterprises. Organizations are still using [manual invoice data capture methods](#) to process over 90% of their invoices manually, according to a 2017 Billentis report.

To further complicate matters, they are also processing and filing nearly all their incoming invoices in paper form – in fact, a recent Corcentric survey revealed that nearly 44% of finance staff still get invoices by fax. For tax and legal purposes, these invoices are often filed together with additional documents such as purchase orders.

One or more accountants handle these files, verifying the accuracy and relevance of the information they contain, including:

- whether the vendor is already on the organization's list of approved vendors,
- whether payment has been authorized,
- whether vendor details are still the same.

Manual data capture

To ensure the company has the payment information it requires, AP team members extract and enter invoice data from digital and paper invoices to an assortment of internal systems. They also need to check and compare the data to the contents of various databases. This is the long process:

Automation
rate

0%

Final validation by
human



Human hours
involved

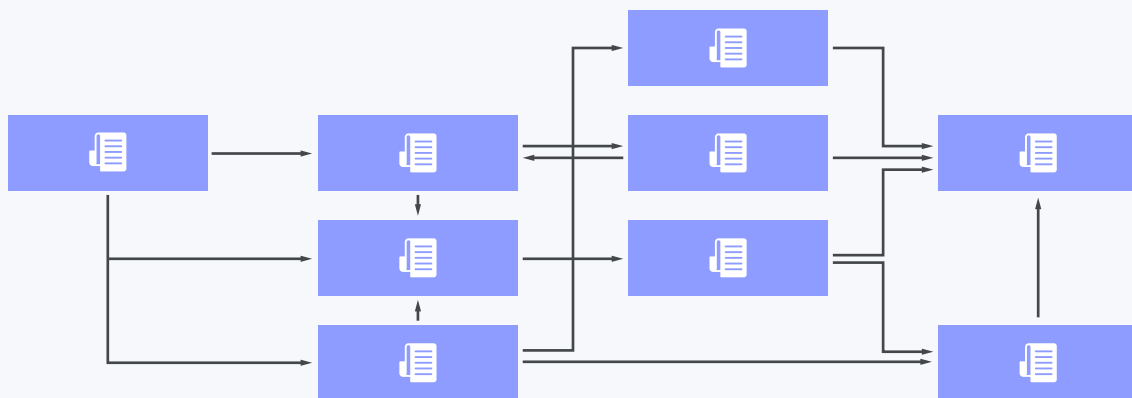


~150,000 keystrokes per data
entry FTE per month

- take a document (i.e., an invoice) from a file,
- find one or more fields in the document,
- retype the data from the field(s),
- compare the data you just retyped to information in the purchase order contained in the file, close the file and open a new one,
- repeat.

This procedure works just fine for a simple invoice in an ideal world. In reality, however, this process can take a week or longer according to the previously mentioned Corcentric article, potentially getting bottlenecked and more complex with each step. The cause of such difficulties could be something as trivial as an incorrectly typed number or misplaced decimal, or as critical as a disorganized invoice processing system made up of various departments and individuals entering and checking data on an ad hoc basis.

Unstructured invoice processing system



The harsh reality: Lost invoices, duplicate payments, and late payments

To provide a clearer sense of the issues that [manual data entry](#) can create, we'll examine two recurrent scenarios that stem from manual invoice processing. We'll use benchmarks and KPIs to analyze these situations later on; we'll start with a glimpse of the reality of working for an AP department.

Lost invoices can lead to duplicate payments

Invoices arrive at an organization through several channels, including the business postal addresses and email accounts of managers who have ordered services. Because payment workflows tend to be haphazard and inefficient, invoices can end up buried and lost in a pile of mail or an unused spam folder. After several weeks of waiting for a company to pay such an invoice, the vendor might issue a duplicate invoice and then place an angry call to the procurement department. To prevent this from escalating, the AP department could decide to bypass the correct approval process and make an exception – resulting in a duplicate payment to the vendor.

Late payments and excessive invoice processing times

Have you ever wondered why large companies require their vendors to deliver invoices with a payment due date that is two or three months after the invoice issuing date? The reason is simple: they require this time to process invoices and issue payments.

The entire procedure, from receiving an invoice to payment authorization, can take several weeks primarily for two reasons:

First, the accounting department may be having difficulty processing a large number of invoices. All the data that AP receives from other systems can overload the team, causing a knock-on effect throughout the invoicing workflow. This effect manifests itself in longer processing times, higher error rates when retyping or pairing invoices, and issues with cash flow, vendor relations, and communication with other departments.

The second cause of excessive invoice processing times is more common than the first: a disorganized, almost ad hoc system that is often short-handed due to paid time off and absenteeism. Working in such a chaotic environment, [AP teams that process invoices manually](#) are prone to bottlenecks. To further complicate matters, invoice processing and approval often require cooperation and coordination across several internal departments and, in some cases, external payment solution providers.

Generally speaking, manual data invoice extraction can and usually does lead to several major short- and long-term problems. To help you determine whether your manual invoice data extraction processes are causing your company more harm than good, check the following widely used metrics and benchmarks.

Let's talk numbers and facts

If you want to understand the effectiveness of your [invoice data capture process](#), look at your system's qualitative and quantitative aspects. Start with these numbers and KPIs first to identify potential complications that manual invoice processing is creating for your AP department.

Cost per invoice. Total Cost of Ownership (TCO) is one of the main indexes that companies use to evaluate the cost-effectiveness of a process. The TCO of manual invoice data extraction can vary from \$6 to \$50 per invoice. We calculated the TCO for a very simple invoice data extraction process for a hypothetical company and got a result of \$2.03 per invoice.

Invoice turnaround time. The average time to process an invoice through the entire cycle, from invoice receipt to payment authorization, is 12.4 days though it can reach up to 25 days. This KPI is very important because it affects the penalties for late payments and discounts or bonuses for early payments.

Cost of late payments and penalties. Whenever the time to process an invoice exceeds the payment due date, many vendors charge a penalty for the late payment. This not only generates additional costs for the AP department, but it also creates friction between vendors and their customers.

Rate of timely payment. This index represents the opposite of late payment penalties. Optimally, all invoices should be paid on time or early – doing so can really pay off!

Rate of captured early payment discounts. To improve their cash flow, vendors sometimes offer discounts for early payment. These reductions typically vary between 7-2%, making smooth, timely invoice processing profitable while lowering costs for the AP department.

Cost of errors. Everyone makes mistakes; data entry specialists can be especially prone to making them when the quality of incoming invoices is low. Incorrect data entry in company systems can result in, for example, payments going to the wrong accounts. An incredible 72.5% of invoices require some type of reworking when handled manually. The hidden costs of human errors include the additional time, resources, and budget required to find and correct mistakes.

Rate of duplicate payments. Globally, over a third of all companies report that duplicate payments and overpayments account for more than 7% of their total payments. This figure reaches 2% for 74% of all businesses. This index is important, as it indicates several issues that a company needs to address in its processes, such as cash flow problems and the additional time and communication required to capture, process, and solve duplicate payments and overpayments.

Quantity of supplier inquiries, disputes, and escalations. The AP department is often the team that vendors call when they have complaints about late payments or unpaid invoices. Ideally, suppliers should be discussing their products or services with the procurement managers that place the orders – not reporting payment issues to AP. Every supplier inquiry about late or missing payment costs time, resources, and money as accountants communicate with vendors to resolve the matter.

Manual invoice extraction is bad for your business in the long run

Most measurable quantitative problems are clear, but organizations often disregard or ignore qualitative issues. As you're about to see, this neglect can have dire consequences.

Vendor relationships and turnover. Late payments without prior notice, payments to the wrong accounts, lack of communication... all of these take their toll on vendor-customer relations. Prompt payment is one of the cornerstones of a functioning business relationship; a high turnover of vendors due to poor payment practices can damage your brand and reputation.

Invoice fraud. A staggering 82% of organizations reported they'd been the victims of payments fraud in 2018 according to the [2019 AFP Payments Fraud and Control Survey](#), underwritten by J.P. Morgan.

Cash flow planning. Invoice processing is one of the most crucial aspects of cash flow management. You cannot manage your cash flow if you do not have the correct payment amounts and due dates. When you process invoices correctly, rapidly, and on time, you'll have an easier time managing and boosting your cash flow.

Employee satisfaction. Retyping data from an invoice is a mentally exhausting chore. Companies are finding it increasingly difficult to find data entry specialists; the burnout rate of these specialists is accelerating, and replacing and retraining them is labor-intensive and costly.

While your AP department may have data entry staff who are willing to spend most of their time mindlessly transcribing data, chances are they're not the most engaged or focused team members. Providing them with technology that enables them to focus on other tasks will help increase their productivity and value to your company; at the same time, it will boost their satisfaction with their role in your AP department.

Summary

While manual transcription is still the most common way of capturing invoice data and processing invoices, it's also the least effective. From human errors, while entering data through duplicate payments to turnover, manual invoice data capture bottlenecks in company processes. We can see as much in quantitative KPIs and qualitative indexes such as the state of vendor relationships and employee satisfaction.

Manual invoice processing is clearly inefficient and expensive. Now that we know the extent of its impact on your business, we'll spend the next chapter evaluating alternatives such as outsourcing, P2P portals, template-based OCR solutions, and [AI-powered OCR solutions](#).

Manual Data Extraction

\$2.03

per invoice

105

keystrokes per invoice

111

sec per invoice

12.5%

invoices needed rework

3,840

invoices per month per FTE

5.5

minutes to rework invoice

Part 2: Alternatives to manual invoice data extraction

With the exception of outsourcing, the main differentiator among data capture alternatives lies in the technology that powers them. Procure-to-pay (P2P) portals, electronic data interchange (EDI), and [automated invoice data extraction](#) solutions all have strengths and weaknesses that are conditioned by company requirements and limitations.

For example, let's take a quick look at what the two optical character recognition (OCR) variants of automated data extraction have to offer. A [template-based OCR solution](#) is a reliable cost-effective option for a company that has long-term contracts with a group of vendors that are small enough to be trained to

use the company's invoice templates. On the other hand, a company that does business with a large set of vendors, each with its own invoice format, would be wise to use [AI-powered OCR software](#).

In this part, you'll learn about alternatives to manual invoice data extraction. This should help you choose the option that meets your company's specific needs.

Outsourcing



Outsourcing the AP data entry process may sound like another alternative, and a reliable provider can work wonders for your bottom line. Typically, however, this option is fraught with perils. You're allowing a third party to control your invoice processing procedure, and quality issues may take a long time to iron out during implementation.

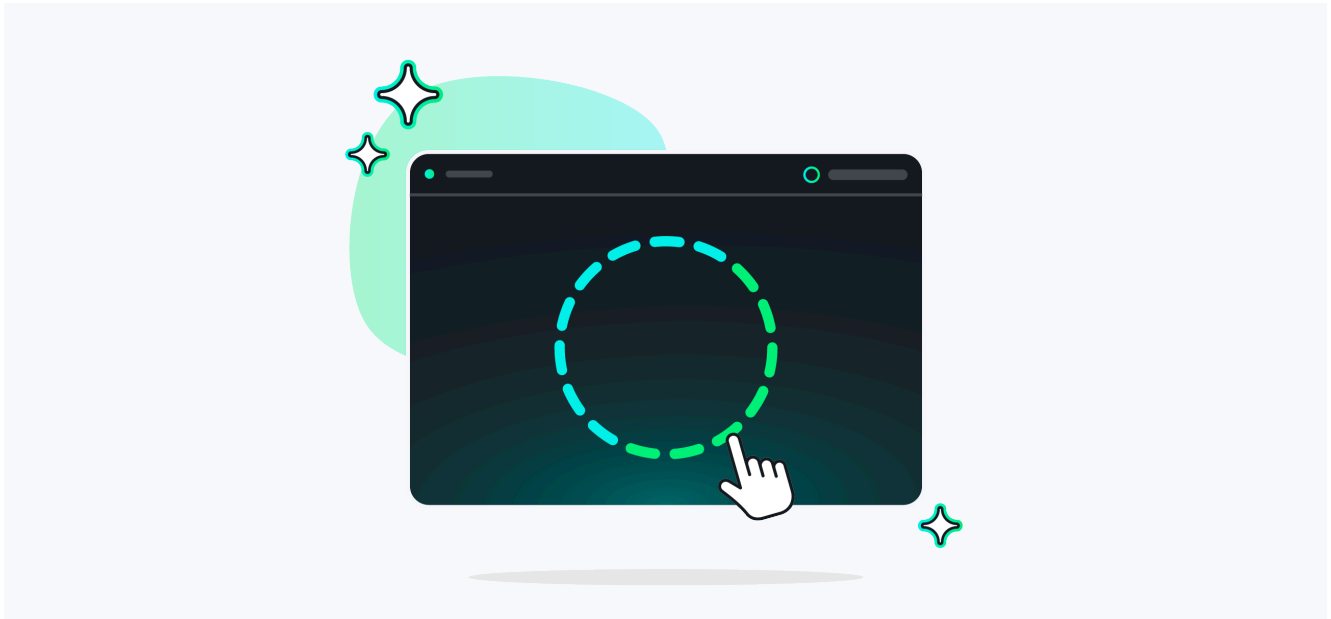
Outsourcing also

- puts data security at risk,
- adds hidden costs to invoice processing,
- lacks the capacity for learning and adapting to your business processes,
- is incapable of innovating AP workflows,
- requires AP resources for cross-checking work.

On top of all that, the extraction process may cost less per invoice, it's still manual. So outsourcing actually creates new liabilities that can replace or escalate existing ones.

At best, a good outsourcing provider that involves you in their data capture processes will continuously require you to provide a lot of input concerning your accounting standards and organizational structure. In a worst-case scenario, a bad provider's unskilled, poorly trained workforce will deliver unacceptable data extraction accuracy that creates extra work for your accounting experts.

P2P portal



In an AP context, P2P stands for the procurement lifecycle, starting with requisitioning a vendor's goods or services and ending with payment for those goods or services. In other words, "from procurement to payment" which has been shortened to "procure-to-pay".

A P2P portal handles the three key processes that make up the procurement life cycle: requisitioning, purchasing, and payment, enabling you to bring each department's activities together digitally into a more structured flow. These activities include:

- requisitioning products and services,
- raising purchase orders (PO),
- receiving products and services,
- invoice processing,
- payment.

This system is designed to centralize Purchasing and AP data, improving transparency while giving you more control over transactions. A P2P portal presents a two-fold alternative to manual invoice data entry. First, **all** payable invoices must be associated with a purchase order already tracked in your P2P system. Second, your portal allows the suppliers to enter invoice data directly into the buyer's electronic system, relieving your accounting team of the manual data transfer element.

The main causes of P2P friction are:

- high proportion of paper invoices received,
- too many non-PO-based invoices,
- high volume of supplier inquiries regarding invoice or payment status,
- lack of automated exceptions,
- lack of automated approval.

If left unchecked, P2P issues can waste a whopping 725 hours per week. And that's just the minimum: the bigger the business, the greater the friction.

Making matters worse, P2P systems also often lack ownership and data governance and make little effort to engage and onboard suppliers according to a [HICX Solutions report](#). So if you're considering a P2P solution, make sure you factor in the resources, time, and budget required to overcome these issues.

EDI

EDI enables a standardized paperless interchange of information between computers, all but eliminating the manual work required when processing data from documents received via email, post, or fax. Invoices are among the most common documents that businesses exchange using this solution. Entirely digital and often automated, many companies are using EDI to transfer data more efficiently and affordably.

The market's general opinion is that universal EDI is critically flawed and is incapable of reducing your invoice processing costs – in fact, moving all your suppliers to EDI can drive up these costs.

Even before you start using it, you're looking at a time-consuming and costly setup that places demands on your IT department. The technological complexity of EDI requires you to invest in a network dedicated solely to transferring invoice data between you and your suppliers. Even if you decide to outsource the setup and network requirements, you still end up paying high fees for these services. You also need to invest in training so your AP team knows how to work with your EDI solution.

For the reasons outlined above, suppliers rarely use EDI software. With ongoing standardization and emerging government mandates across the world for EDI, the situation may improve, but this will not be a fast process given the extensive market inertia; therefore, relying on EDI to universally solve your AP issues will not work. Still, EDI is a continuum – it may mean universal exchange formats, but perhaps just extending a P2P supplier portal with an API will do the job as well. Considering EDI for specialized cases (e.g. tight and unique supplier relationships) may work.

There are two types of automated AP invoice data extraction solutions, both using OCR technology.

The older option uses templates and is still worth considering if you only process a few invoice formats. AI-powered OCR alternatives, on the other hand, can deliver substantial savings if you need to handle a wide range of invoice formats on a regular basis. The advantages and disadvantages of both solutions are more complex when you start looking at cost and on-site versus cloud-based platforms.

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Still, your expensive new data extraction solution won't be able to process paper invoices at all, increasing the potential for bottlenecks in AP processes because many suppliers will continue to use paper invoices for the foreseeable future.

Generally speaking, the benefits you gain from an automated AP data capture solution include:

Increased productivity – OCR-based invoice processing enables your AP team to focus on tasks other than entering and checking data.

A reduction in errors – To reinforce built-in error checking functions, automated data capture gives your AP staff more time to verify that processed information is error-free.

Integration – You can get state-of-the-art automated AP data extraction solutions that integrate seamlessly into your existing business software suite without requiring expensive, lengthy, resource-intensive implementation projects.

Template-based OCR solutions

OCR technology converts characters in physical documents into digital text. For invoice data extraction with template-based OCR software, your AP staff needs to configure the program so it knows what information to look for in invoices and where it needs to look. This becomes problematic if you work with several vendors, each with its own invoice layout.

To a certain extent, you're automating the creation of digital invoices from physical documents, which should recover the man-hours and cost that manual data processing demands. However, there's a catch – template-based OCR platforms deliver 98 to 99 percent accuracy. That sounds great, but your AP processes need a solution that is 700 percent accurate. Your automated data capture software must place the right data in the right fields for every document.

Let's say you have a template-based OCR solution and it's processing an invoice with 7,000 characters. Your software's 99 percent accuracy gives you 990 correct characters. Those 70 incorrect characters could cause minor inconveniences if they're in, for example, your supplier's name or address. However, inaccuracies in key data such as the PO or invoice numbers, itemized or total prices, or quantities of purchased goods could snowball into costly complications.

Even 700 percent accuracy can't save your AP staff from manual processing when they receive invoices that don't match any of your OCR software's templates. So outliers and exceptions end up creating chores that an AI-powered solution could handle quickly and affordably.

AI-powered OCR solutions

Advances in artificial intelligence (AI) and machine learning (ML) enables automated invoice processing solutions to not only extract data, but also understand data. These cognitive data capture solutions come preconfigured with the ability to extract information accurately from millions of invoice templates, and they continuously learn how to interpret different invoice formats over time.

Fast, cost-effective setup and minimal training also make [AI-powered OCR data extraction](#) a viable option. Because it gets to know templates and extraction rules with usage, this variant of automated invoice processing requires less manual work from your AP team over time.

AI and ML have taken invoice data extraction software to new levels of efficiency and accuracy. The combination of these smart technologies with OCR substantially reduces the need for AP staff to check and recheck captured data. The software learns to read various invoice structures so it can distinguish, for instance, a price from a postal code. While you'll still need human validation of some of the data, the cost of an automated cognitive data capture solution is considerably lower than that of a template-based OCR.

Summary

The first three alternatives to manual invoice data processing – outsourcing, a P2P portal, and EDI – all have their own success stories. However, their drawbacks can make them expensive and difficult to manage, making them unsuitable for many situations.

As we mentioned in the introduction, a template-based form of automated data capture could serve you well if you work with a relatively small number of vendors with a limited variety of invoice formats. If you can get your vendors to use your preferred invoice format, EDI might be right for you.

The more likely scenario is that your AP team is handling many different invoice formats and layouts. In this case, you need an automated data extraction solution that uses smart technologies to learn how to read new invoices and accurately capture key information in any format, such as value pairs and tables.

In the next chapter, you'll get insights into how to choose the best invoice data capture solution for your business.

Part 3: How to choose the right AP software for your business

To wrap things up, we'll give you insights and guidance to help you find the ideal invoice [data capture provider](#) for your business.



Evaluate your current situation

Let's say you know what's wrong with your data extraction techniques, and you know what solution you're going to use to make your AP team's lives that much brighter. Now all you need to do is find an invoice data capture provider, right?

Well, it's not quite that simple. Before you start approaching potential vendors, you'll need to assess the state of your existing **invoice processing** method. This will give your provider a thorough understanding of what to fix, and how their solution can fix it. Also, any candidate worth considering will have questions about your current situation and you'll need to have answers.

To ensure your new **data extraction solution** delivers precisely what your business needs without excessive features that add little to no value, take the time to do each of the following activities before you enter into discussions with solution providers:

- understand your existing process,
- determine your goals,
- list required integrations,

- establish invoicing formats,
- decide on report formats,
- have all the answers about your business,
- questions to ask your AP Automation suppliers.

Understand your existing invoice data capture process

Breaking your invoicing process down into steps will help you see what's broken. Work with your AP team to examine your company's entire **procurement-to-pay (P2P) workflow**, from requisitioning all the way to payment approval. Map out the procedure in detail so you can identify and locate steps that require improvement, replacement, or removal. This will also help you determine the scope for your automated accounts payable solution.

At the same time, keep an open mind about revamping business-critical parts of your P2P workflow rather than just completely replacing specific stages.

Determine your goals

Ultimately, you want to reduce the total cost of ownership (TCO) of processing invoices while increasing revenue generation opportunities. To ensure you reach these two key goals, you need to dive deeper to figure out what your data extraction solution must achieve. For example, you might be looking to:

- reduce or eliminate paper usage and paper-based processes,
- get early payment discounts,
- boost AP staff engagement and satisfaction,
- increase AP efficiency.

Once you know what you want to get out of your **automated AP solution**, you can set your project's scope and budget and deliver a brief that enables candidate vendors to prepare accurate quotes.

List required integrations

Before you start looking for a new solution, get in touch with your IT team. Your new invoice processing solution needs to play nice with your existing enterprise resource planning (ERP) system and other company software that works with AP data. As you're reviewing potential suppliers, your IT experts can evaluate each data capture solution's security, configuration requirements, and access rights. IT can also determine whether the integration of each proposed solution will be an affordable breeze or an expensive hassle.

Establish invoicing formats

In the first chapter of this series, we mentioned that many AP teams are still processing paper invoices. Some suppliers might find electronic invoicing is impractical compared to their established paper-based practices. Define your invoicing requirements so your prospective automated AP solution providers can give you a better understanding of their capabilities and limitations.

Decide on report formats

As you'll be tracking and measuring the performance of your **invoice data capture solution**, the analytics and reporting that each vendor provides will be vital to the decision-making process. To ensure your comparison of reporting capabilities is effective, define your KPIs and analytics, and reporting requirements clearly. Two important KPIs to track are the total time to process an invoice from receipt to payment and the size of the team required to process incoming documents.

Have all the answers about your business

Worthy candidates will want to know specifics about your AP team's operations and data capture requirements. Make sure you can give them the answers they need to prevent future complications, delays, or additional costs. On top of queries about your current situation, as described above, key questions include:

- How many invoices do you process per month and per year?
- What channels do you receive invoices in? For example email, fax, post, other?
- What kind of information do you need to extract in terms of specific data fields?
- Do you have invoices with line items?
- Do you check captured data against databases?
- What do you do with captured data?
- Which applications are/will you upload captured data to?

Questions to ask Accounts Payable Automation suppliers

To get the right data capture solution for your business, you need to ask the right questions.

Here are some of the key talking points that will help you choose your Accounts Payable automation provider.

- Can the solution handle all types of invoices you receive?
- How does the solution learn new invoice formats?
- How long will solution implementation take?
- What are the pricing units – price per page, per document, or other?
- What is the TCO; that is, are there any additional costs (e.g. upgrades, updates, maintenance) that need to be factored in?
- Can you easily determine and itemize the actual fees you'll be paying?
- Who will provide maintenance for the solution – the provider, the buyer, or a third party?
- Will the solution be on-premises or cloud-based?
- How does the solution keep data secure?
- Is the solution in line with your business' data privacy policies?
- What are the solution's false positive and manual data capture rates?

Of course, you should always ask candidates for references and check how widely their solutions are being used. For instance, an **accounts payable automation provider** that serves several Fortune 500 companies are likely to have a very mature product and the development and support resources that a smaller startup doesn't. At the same time, that smaller startup may offer equally reliable invoice data capture software that

is more cost-effective at the outset and further down the line and may be much faster to implement. Finally, have shortlisted candidates help you build a business case to sell their solutions to your management team. Sales experts should be able to give you a full cost breakdown, a list of manual tasks that accounts payable automation will eliminate, a summary of time and cost savings, and an ROI assessment. But remember the more details about your current process you have, the better data you will receive from prospective providers.

Conclusion

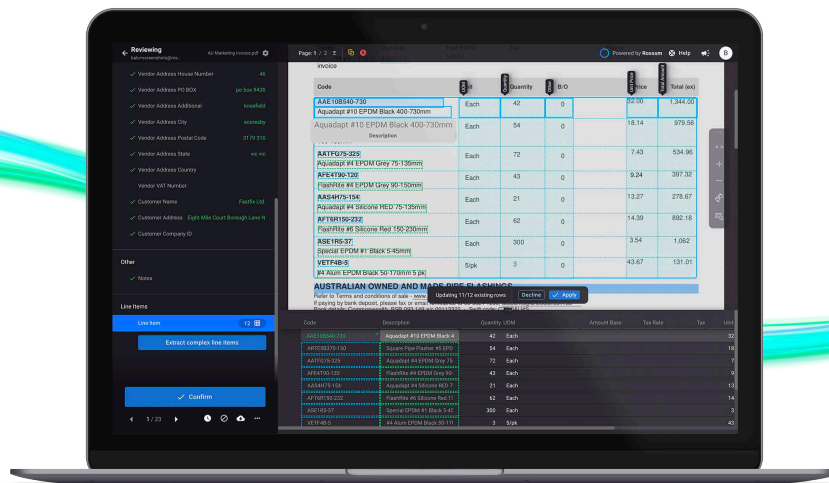
Selecting the most suitable automated invoice data capture solution for your business demands more than a simple feature and pricing comparison. A hastily chosen service provider can end up costing you more than you'd anticipated while causing your AP and IT teams a relentless headache.

Taking the time to evaluate your business needs, calculate your budgetary requirements, and draw up a thorough RFP will help ensure you get the ideal invoice processing solution.

The Rossum Platform

A single platform designed to minimize the time your organization spends processing documents.

Book a demo



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