

2019

Guide to  
OCR, Invoice Scanning  
& Data Capture



Most organizations say manual data entry and the high volumes of email and paper invoices they receive are a huge challenge.

## The Invoice Capture Challenge

Third party reports from the field confirm the challenge organizations face when capturing invoice data. 80% to 90% of invoices received by both medium and large size companies is either paper or email.

As you can see from the charts presented here, even with the advent of technologies such as EDI and network portals, the bulk of both invoice receipt and invoice data entry revolves around paper and email.

So how are organizations tackling invoice capture? Not very efficiently:

- Paper invoices are handled and entered into accounting systems manually
- Emailed invoices from suppliers are printed out and manually keyed into the ERP
- Invoice scanning is done with legacy OCR technology that has limited functionality, depth, and integration capabilities
- For growing companies, larger invoice volumes has meant adding to their headcount
- Most ERP solutions do not have the functionality to automate these areas

### Paper & Email Dominates in North America

#### How Companies Receive Invoices



#### How Companies Enter Invoice Data



# Methods of Capture

## → Capturing Paper & Image Data with OCR

### Formats Suited to OCR

- Paper Invoices
- Visual Digital Format Invoices
  - JPG, PNG, GIF (picture formats)
  - TIF (from scanning software)
  - PDF containing a scanned image

Because paper invoices and invoices sent as an image have no data layer, each invoice has to be scanned by Optical Character Recognition, or OCR. The collected data is then input to the ERP or accounting system.

### Resource Implications

Manually capturing essential data fields from emailed or paper invoices is time consuming and resource intensive. AP departments handle mailed or emailed invoices in various ways, with most of them keying in the data manually, a time consuming and error-prone process at best.

Conventional or legacy OCR systems often require manual input in order to function because of the time and effort for both field mapping and the collecting of data after it has been captured.

The latest advances in OCR technology reduce the amount of time involved in legacy OCR, introducing automation and intelligent data collection and retrieval.

**2019 >** 95% accuracy rates are achievable with intelligent OCR technology

### The Evolution of OCR

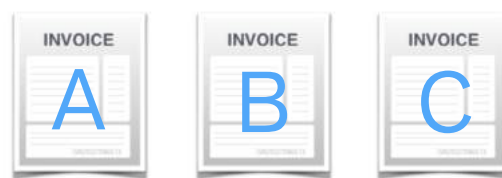
#### Traditional OCR - 2000s



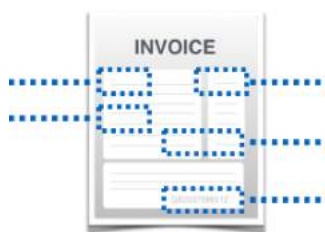
OCR is used to process either paper or emailed invoices, and the invoice layouts are manually field-mapped. There are often issues with integration and a lack of workflow.

#### Advanced OCR - 2014

OCR is able to detect the invoice type based on its layout and sorts it accordingly.



#### > Intelligent OCR - 2019



Intelligent OCR teaches itself to identify supplier invoices based on their layouts and then automatically stores that information for future reference.

Intelligent OCR also intuitively maps the data fields in each invoice using intelligent tags, called "intellitags", as identifiers, and stores them in a database.

Because of the use of automation and smarter processing, 95% accuracy rates are achievable with intelligent OCR technology.

# Methods of Capture

## → Capturing Electronic Format Invoices

### Formats Suited to Digital Capture

#### Digital/Electronic Invoice

- Structured Digital Formats
- Spreadsheet (Excel)
- Word (.doc)
- HTML
- XML
- Data PDF
- EDI (EDIFACT)
- CSV

A digital or electronic invoice is a document that exists in a digital format (composed of data in the form of binary digits). It is output by a supplier's ERP system as either structured or unstructured.

#### Structured Digital Format

XML, EDI, Data PDF, HTML, CSV, Spreadsheet, Word (.doc)

#### Unstructured Digital Format

Invoice data cannot be automatically read from the document into accounting systems.

Today most ERPs can output a structured digital format, such as a PDF. The majority of invoices received by email are structured invoices in one of the formats listed above.

**2019>** Accuracy rates of 100% thanks to the data layer inside each electronic format invoice

### The Evolution of Digital Invoicing

#### Traditional EDI - mid 1960s



Companies have their own form of electronic data interchange until the establishment of the ANSI X12 EDI standard.

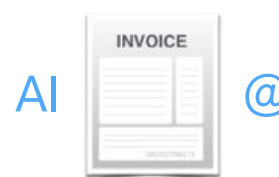
#### Web-based Portals - 1990s

Online submission of individual invoices as well as EDI file uploads, including CSV, PDF, and XML formats.



#### > Intelligent Capture - 2019

ANY FORMAT



Automation

A digital format invoice is sent to a designated email address where capture automation and AI instantly reads the data and extracts it, forwarding the invoice data to the buyer's ERP.

Because the electronic file has a data layer that reflects exactly what was input, the information transfer is 100% accurate. Invoice processing happens automatically and within minutes of receipt.

# Business Case

## → Capture Methods Compared

Invoice Format	Speed to Set Up	Infrastructure Changes	Cost to Buyer	Cost to Supplier	Data Accuracy	On-Boarding Rates	Technology
PDF/ Electronic	Fast	None	¢	Free	100%	High	Intelligent Capture
Paper	Fast	None	¢	Postage	95%	High	Intelligent OCR
Portal	Fast	Some	\$	\$\$	Low	Low	Network
EDI/XML	Slow	Many	\$\$\$	\$\$\$	100%	Low	EDI

For organizations that want to capture invoice data digitally, there are a few things to consider before choosing the best capture solution.

The business case is based on considerations such as:

- the time it takes for set up
- infrastructure changes and I.T. resources
- the cost to the buyer
- the cost to the supplier
- data accuracy
- on-boarding rates

### Speed to Set Up

How long will it take to set up and implement the technology to capture invoice data efficiently? Intelligent Capture is fast because the supplier only has to send the email invoice to a designated email address. Intelligent OCR accepts paper, so the supplier can continue to send paper invoices.

**2019 >** No costs incurred by suppliers

### Infrastructure Changes

What infrastructure is necessary on the supplier's end? Intelligent Capture has no infrastructure requirements on the suppliers end, because most ERPs can output an invoice in PDF or other electronic format.

### Cost to the Buyer

What is the cost to your organization? Things to consider are user licenses and software costs. The cost for Intelligent Capture/OCR is low because pricing is based on volume and allows for an unlimited number of users.

### Cost to the Supplier

Both Intelligent Capture and Intelligent OCR are free for suppliers.

### Data Accuracy

What data accuracy can you expect? For paper invoices, 95% accuracy rates. For electronic formats, 100% accuracy rates. Encouraging suppliers to send an electronic format instead of paper benefits both parties - lower costs, accuracy, and faster payment cycles.

### On-Boarding Rates

How many suppliers will on-board to your invoice capture solution? On-boarding rates for both Intelligent Capture and Intelligent OCR are high because there is no cost to the supplier, and all suppliers need for emailed invoices is a designated email address.

# Footnotes

## Invoice Formats

- Paper Invoice
- Digital/Electronic Invoice  
An electronic invoice is a form of digital invoice. A digital invoice is a document that exists in a digital format where digital is defined as "composed of data in the form of especially binary digits" (Merriam-Webster). There are 2 types of digital formats – visual and data.
  - Visual Digital Format Invoices  
JPG, PNG, GIF (picture formats)  
TIF (from scanning software)  
PDF containing a scanned image
  - Data Digital Format Invoices
    - Unstructured* -  
The data cannot be automatically read from the document into accounting systems
    - Structured* -  
Spreadsheet (Excel)  
Word (.doc)  
HTML  
XML  
Data PDF  
EDI (EDIFACT)  
CSV

## Delivery Formats

Digital/electronic invoice formats are sent using the following means:

- Email (most common)
- Data Transfer Protocol
  - SFTP
  - HTTPS
  - AS2

## Palette Capture Solution

**Palette's Capture solution is an effective way to intelligently capture data from both email and paper invoices, eliminating the need for time consuming and costly manual data entry.**

**For paper invoices,** Intelligent OCR is capable of automatically and intuitively detecting/learning unique vendor invoices based on their respective layouts, allowing the scanning and/or importing of data from emailed or paper invoices with more efficiency. The OCR scanning software also intuitively performs field mapping and data collection.

**For emailed invoices,** Intelligent Capture captures invoice data from any emailed invoice electronic document format such as PDF, XML, EDI, Word, TIFF, JPG, HTML and more. Our data capture service is free for suppliers and they incur no cost to send invoices to your Accounts Payable system. The process is very straightforward – they simply send their invoices to a designated email account.

- **Both Intelligent OCR and Intelligent Capture get high marks for ease of use**
- **Drives faster invoice approval workflow**
- **Cloud-based solution**
- **For suppliers no infrastructure or capital investment needed**
- **95% accuracy rates for paper; 100% accuracy rates for electronic formats**
- **Reduces processing costs up to 50%**
- **Most affordable invoice scanning and capture software on the market today**
- **Seamless integration with over 50 ERPs**

# Palette Capture S O L U T I O N

Digitally capture all formats of paper and email invoices.

[Book a Consultation](#)



## Palette offers a complete modules-based AP Automation & Purchase to Pay Suite

### PREPARE & DIGITALIZE

Using Artificial Intelligence and capture automation, data is intuitively extracted from both paper or emailed invoices. Eliminate manual data entry completely.

### MATCH & APPROVE

Palette automates the processing of PO and Non PO invoices. Automated matching to internal/external purchase orders and goods receipts, and/or from contracts. Mobile and email one-click approvals with flexible workflows.

### REQUEST & PURCHASE

Control, regulate and automate your company's purchasing function to gain better control over indirect spend. Give your employees the ability to quickly find the right product, at the right price from the right vendor, all with management oversight.

### BUDGET & SPEND ANALYSIS

Make a capital or operational budget request and allocate a specific amount to a larger investment project. Get control over all costs associated to the project, and early warnings if the budget is likely to be exceeded.

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Multiple ERPs - Unlimited Users - Expandable - Secure



250,000+ Users  
Over 3,500 Clients Worldwide  
★★★★★  
96% feel that Palette fulfills expectations



Cloud or  
Local Install



Seamless Integration  
with Your ERP

### Our Platform Accreditations

