



Work Like Tomorrow.™

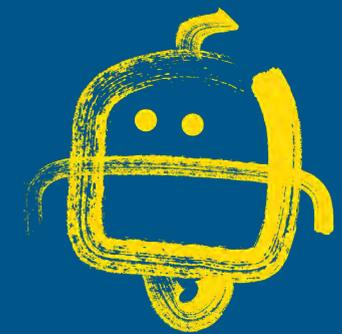
YOUR INTELLIGENT DIGITAL WORKFORCE

HOW RPA AND COGNITIVE DOCUMENT AUTOMATION DELIVER
THE PROMISE OF DIGITAL BUSINESS



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MAXIMIZING THE VALUE OF DATA

Data drives modern business. This isn't surprising when you consider that 90 percent of the world's data has been created in the last two years alone.

The question is: how can you make this profusion of data work for your business and not against it?

Enter robotic process automation (RPA), which marked a turning point in tapping into the hidden value of data. With the help of software robots, the massive amounts of electronic data previously trapped in internal and external systems became easily accessible, manageable and usable.

Human workers were no longer required to focus on repetitive, manual copying and pasting of information between sources—RPA automatically integrates data between virtually any application or data source, including websites and portals, business and desktop applications and enterprise systems. Far from displacing human employees, this software robot revolution has shown RPA can be a valuable side-by-side digital partner with human workers to streamline operations and expedite the key business activities that serve customers in a wide range of industries.

But what about unstructured information sources, such as documents and emails? How can organizations automate document-centric RPA processes?



Forrester expects the Robotic Process Automation market to grow to \$2.9B by 2021.



DATA DRIVEN, DOCUMENT DRIVEN

It's a fact that we aren't just data driven—our businesses are still very much document driven. In fact, many organizations still grapple daily with how to optimize the acquisition and control of seemingly endless piles of paper and electronic documents flowing into and out of their businesses.

Therefore, no matter how much ROI we are realizing from RPA, if we continue to rely on repetitive, manual task-based processes to manage our documents—and the inherent high error rates and inefficiencies—our businesses are not fully automated.

RPA is incredibly valuable, but it's only part of the equation.



A typical employee uses 10,000 sheets of copy paper every year.



CAPTURE YOUR CONTENT, CAPTURE CONTROL

The key to realizing the full benefits of process automation is to capture control of both your document- and non-document-based information. Only then can you dramatically increase worker productivity and maximize the efficiency of your business operations.

This brings us to the concept of intelligent information capture, which employs artificial intelligence (AI) and software robots to automate the acquisition, understanding and integration of both documents and electronic data from virtually any source, in any format, and to any destination.

RPA + CDA = SMARTER PROCESSES

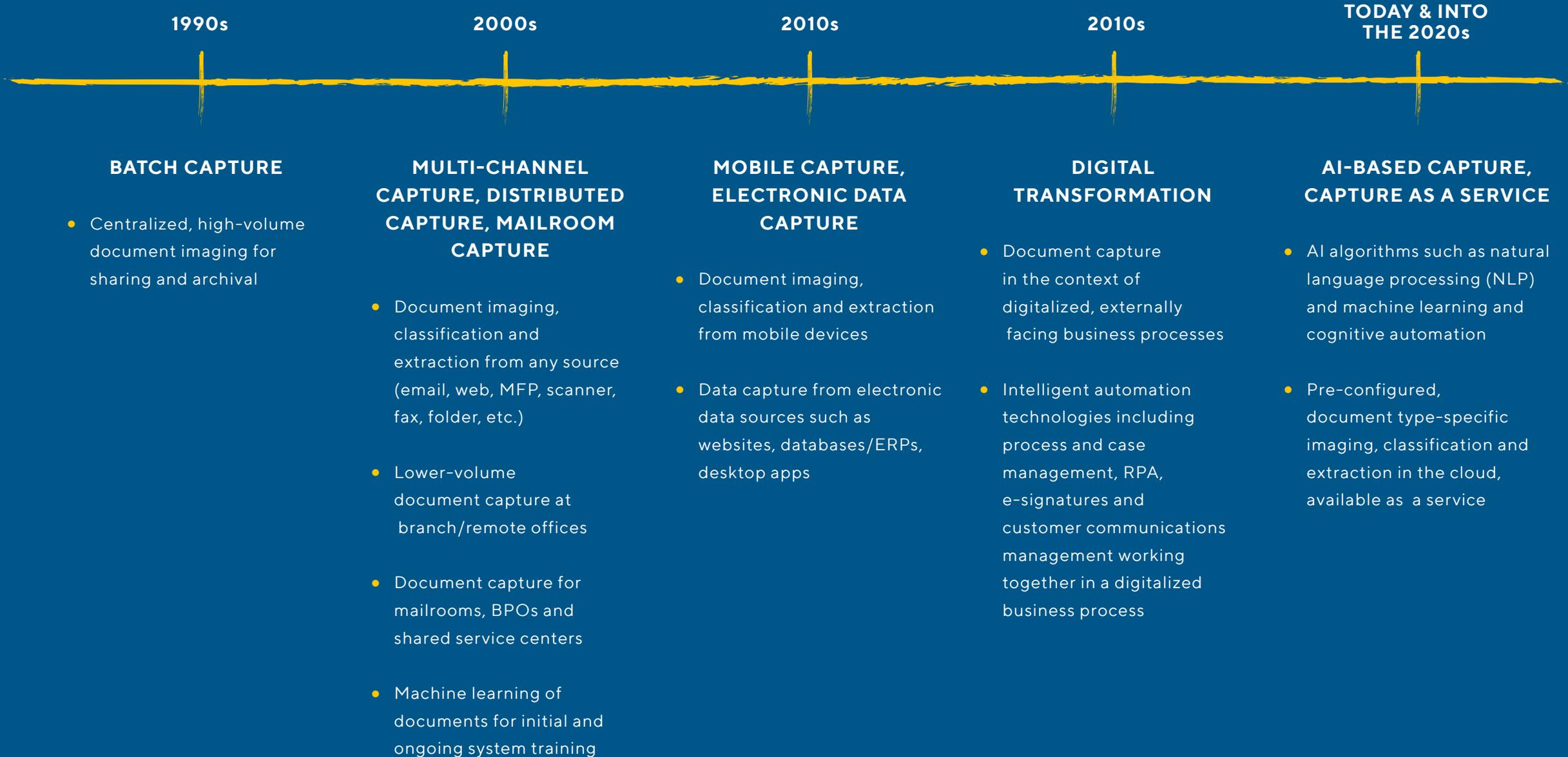
Cognitive document automation (CDA) automates the processing of unstructured data contained in documents and emails. From sales orders/invoices and enrollment forms to claims, contracts and correspondence, CDA can process any document of importance to any business process.

Whereas RPA is the repetitive “hand work” of processing electronic data, CDA is the intelligent “head work” of understanding what the document or email is about, what information it contains and what to do with it.



The average worker spends
30-40 percent of their time looking
for information locked in email and
filing cabinets.

KOFAX KNOWS CAPTURE: AN INNOVATION TIMELINE





ARTIFICIAL INTELLIGENCE: THE FOUNDATION OF CDA

Although information capture systems excel at extracting raw data from documents and electronic data sources, they have historically struggled to deliver contextual understanding of that extracted data for better decision-making. This is where the “intelligence” in AI comes into play.

True cognitive document automation employs AI algorithms that help computers understand, decide, learn and predict to better automate business processes that require information capture. AI can cluster, classify, separate, OCR, extract, understand human language and machine-learn information from any document type or data source.



ANY DOCUMENT TYPE, ANY CONTENT TYPE

Did you know CDA can perform AI algorithms on any document type (forms, invoices, letters, contracts, etc.) and any content type (machine printed, hand printed, cursive, checkboxes, barcodes, etc.) across more than 140 languages?





AI: CONTEXT IS EVERYTHING

When it comes to assigning meaning to language, understanding the context is critical. One key AI algorithm is natural language processing (NLP). NLP software can read or interpret those nuances in human language and create structured data out of unstructured content, such as reading emails or chat sessions and delivering the right information in return or to another system.

CONSIDER THIS EXAMPLE

Suppose your business received an email containing the words “account opened,” “change,” “address on file” and “bad.” Now, is this a complaint about bad service for a recently opened account that needed an address changed? Or a change to a beneficiary name on a recently opened policy at a particular address due to a marriage gone bad?

None of the above. The email actually stated, “My account opened recently needs a change due to a bad vehicle accident. My address on file is the same.”

In this example raw data extraction wasn’t enough. Without NLP, human employees were needed to manually read the email, determine the context and execute next actions.





AI: LEARNING BY DOING

Machine learning and cognitive automation are also key algorithms enabling AI to transform document processes.

Cognitive automation uses document, data and process analytics to build models that learn, estimate, plan and decide on the best action to take.

Consider the onboarding of a new customer, for example: If the system encounters a new applicant profile that closely matches prior applicants who were manually rejected (credit score, bankruptcies, etc.), the system can dynamically adjust settings to automatically reject the new applicant without human intervention. The system gets “smarter” over time as it learns from the actions of humans manually processing new documents and variations of known ones.

Machine learning enables computers to acquire knowledge and then act on that knowledge, just like humans would. CDA software machine learns from document samples, minimizing manual configuration. It also machine learns from users processing exceptions. Machine learning optimizes performance via both real-time and periodic learning processes as it works.

Machine learning also helps make information capture as-a-service a reality. Cloud-based information capture lends itself to document and data learning at a massive scale, growing its knowledge base over time as more and more users submit their information and get back the results from the cloud. Machine learning feeding large knowledge bases produces less human interaction and more automation over time. For example, a business can submit an invoice to a cloud capture service, and the invoice data will be returned automatically or sent to the ERP system for processing—with little to no human involvement.



HfS Research projects AI automation spending to increase from \$1.6B in 2018 to \$2.7B in 2021, and AI-based information capture will play a big role in this growth.



CONNECTING PAPER, PEOPLE AND PROCESSES: RPA + CDA

Complex data capture challenges are often best tackled with a powerful combination of RPA and CDA—a one-two punch that encompasses foundational AI and software robotics.

Whether capturing unstructured data in documents or accessing electronic data (structured data in systems), intelligent information capture involves three stages: Acquire, Understand and Integrate.

Through these three stages, a comprehensive RPA + CDA workflow enables businesses to:

- Acquire both documents and electronic data from numerous sources
- Extract, aggregate and transform this data into intelligent, business-consumable content required by downstream processes and systems
- Deliver the transformed data to the systems and processes that require it

INTELLIGENT INFORMATION CAPTURE

ACQUIRE



UNDERSTAND



INTEGRATE

Capture Documents

- Paper
- Fax
- Mobile devices
- Digital Scanners / MFPs / MFDs
- PDF / MS Office / TIFF / JPEG Files
- Emails

- Recognize Document Type
- Machine Learning
- Extract Information
- Transform Formats
- Aggregate
- Export

- ERP / CRM / LOB
- ECM & Records Management
- Databases and Other Archives
- IT & Telecom
- Infrastructure

Access Electronic Data

- Databases
- Citrix
- Websites, Portals
- Enterprise (SAP, Oracle) & Legacy (AS400, Mainframe) Systems
- Data Files (Excel, XML, JSON, EDI)

INDUSTRIES

- Banking
- Insurance
- Government
- Finance/Accounting
- Transportation/Logistics
- Healthcare

USE CASES

- AP & Invoice Processing
- Digital Mailroom
- Customer Onboarding
- Constituent/Citizen Enrollment
- Loan Processing
- Insurance Claims Processing
- Shipment Processing
- Contracts and Records Processing
- Patient Records



RPA + CDA: DRIVING ROI ACROSS MANY INDUSTRIES

INSURANCE – CLAIMS AUTOMATION

Before RPA + CDA:

Auto, home or health claims filing is often a long, paper-filled process; customers and claims personnel are often forced to enter the same information repeatedly, increasing error rates and resolution times and reducing satisfaction.

The Power of RPA + CDA:

CDA

CDA automates the claims process itself, including document capture and transformation. A slow, high-touch activity becomes an automated workflow in which humans touch only exceptions.

RPA

RPA validates the data provided on the claim, as well as the amount, populating it to a contract management system. This significantly speeds the customer's favorite part: The payment time required from days to just hours or minutes.





RPA + CDA: DRIVING ROI ACROSS MANY INDUSTRIES

FINANCIAL SERVICES — NEW CUSTOMER ONBOARDING

Before RPA + CDA:

When a new customer applies for a line of credit with a bank, the bank must verify that person's identity and credit-worthiness; this can be a lengthy, paper-based process that spans days and often requires visiting a branch to show identification in-person.

The Power of RPA + CDA:

CDA

The customer snaps a picture of their ID with a mobile phone, and mobile ID capture software verifies the applicant's identity. Document transformation automatically extracts and classifies the application.

RPA

RPA pulls together credit verifications from the web. Automating this process shortens the time required from days to just hours or minutes.





RPA + CDA: DRIVING ROI ACROSS MANY INDUSTRIES

INVOICE MANAGEMENT

Before RPA + CDA:

Vendor relationships are often strained due to delayed time to payment and lack of vendor self-service options.

The Power of RPA + CDA:

RPA

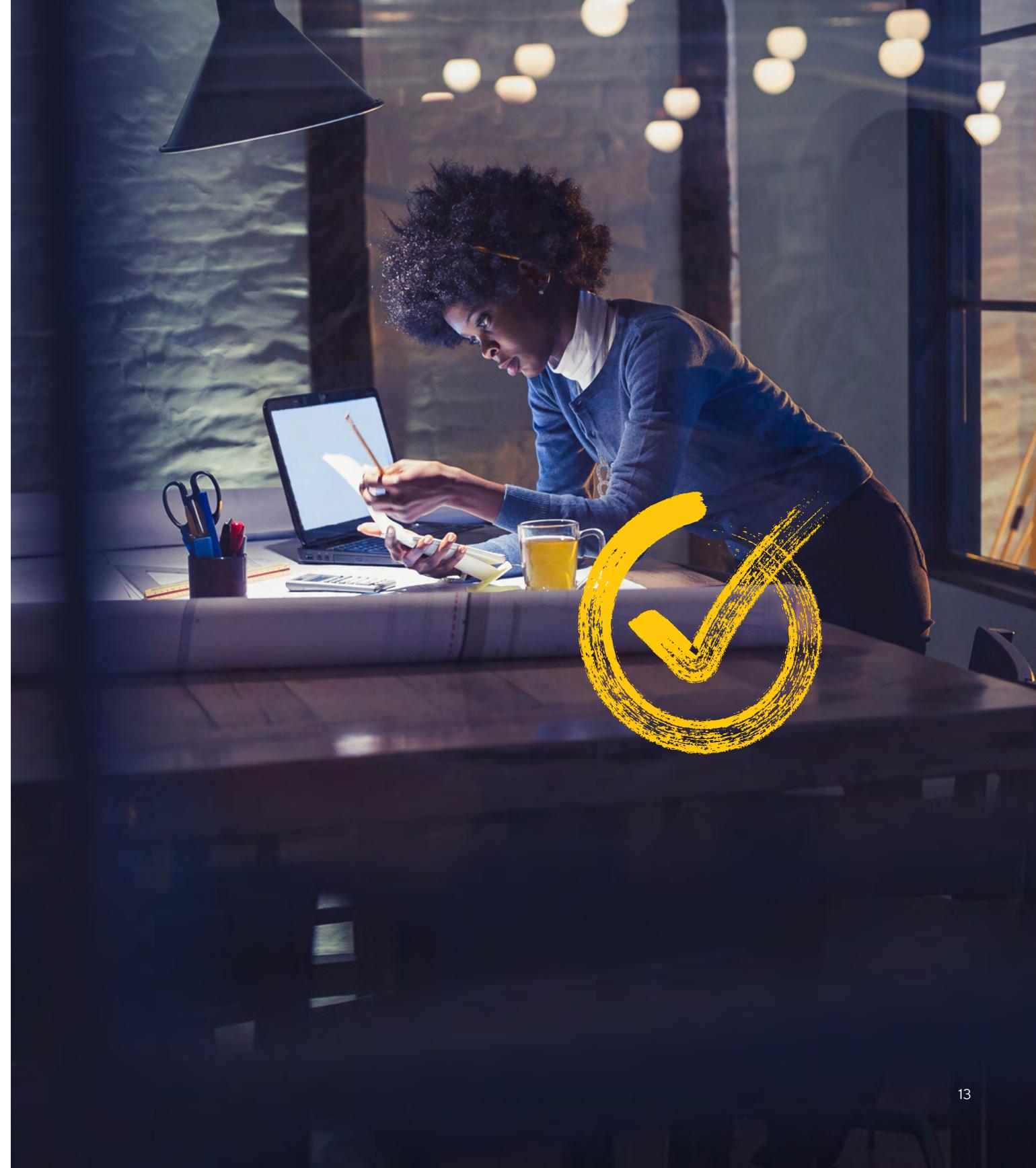
RPA reaches out and downloads invoices and other documents from partner portals.

CDA

CDA uses document capture and transformation to read the documents, categorize, add to workflows and send to employees for approval.

MORE RPA

RPA then completes the process by integrating the documents and data with an ERP; automating this process speeds time to payment.





RPA + CDA: DRIVING ROI ACROSS MANY INDUSTRIES

MORTGAGE LOAN PROCESSING

Before RPA + CDA:

The mortgage process is notoriously paper-intensive, creating often-lengthy delays both pre- and post-close.

The Power of RPA + CDA:

CDA

Document capture and transformation technology captures, classifies and extracts information from mortgage application forms and supporting documents.

RPA

RPA adds additional data from internal and external systems (such as identify verification in a Know Your Customer check) and delivers all data to the system of record.

MORE CDA

After the mortgage loan is closed, these technologies compare documents and validate them for compliance, compare to file closing documents in the system of record and execute on pre-established business rules to move the mortgage loan documents through a post-close workflow.



6 BUSINESS BENEFITS OF RPA + CDA

1 INCREASED PRODUCTIVITY OF DOCUMENT AND DATA HANDLING

Process more documents and electronic data faster, accelerate business processes and improve information visibility—even when originating from multiple channels and formats.

2 REDUCED OPERATIONS COSTS

Reduce manual labor required for document classification, separation and data entry, and repetitive data collection, entry, aggregation, migration and integration tasks.

3 ENHANCED DATA QUALITY

Increase data quality and reduce errors and exceptions in information-intensive business processes.

4 IMPROVED COMPLIANCE

Ensure adherence to business policies and regulatory requirements and provide compliance audit trails.

5 FASTER CUSTOMER ENGAGEMENT

Provide instant data display from captured documents to customers on their device of choice, and accelerate turnaround times.

6 MINIMIZED COST OF OWNERSHIP

Reduce the time to configure and maintain document and electronic data capture projects via machine learning and visual, no-coding robotic process design.



ALL CDA SOLUTIONS ARE NOT CREATED EQUAL

MAKE SURE THE CDA SOLUTION VENDOR YOU'RE EVALUATING IS A  FOR ALL OF THE FOLLOWING:

 **Market-leading information capture offering**

Thousands of satisfied customers and recognition by top industry analysts including Forrester, Gartner and IDC.

 **Single-source**

RPA and CDA from a single vendor powered by proven AI technology.

 **Minimized cost of ownership**

Employs machine learning and visual, no-coding robotic process design to reduce the time to configure and maintain a document and electronic data capture project.

 **Enterprise scalability**

Architected to scale to very large document volumes and distributed work.

 **Global applicability**

Supports multiple user interface and OCR languages.

 **Rapid-response customer engagement**

Provides instant data display from captured documents to customers on their device of choice.

 **Unified, fully integrated platform**

Offers document, task and process orchestration automation in a single unified offering, complete with process analytics, to optimize CDA- and RPA-based business processes.



ADDITIONAL RESOURCES

Webinars

[451 Research Webinar: Merging Robotics, Documents and Process to Digitally Transform Business](#)

[AIIM Webinar: How the Marriage of Robotics, Documents, and Process Can Digitally Transform Your Business](#)

eBooks

[Power Your Processes: How RPA + Capture Empower Your Customer Journeys](#)

[10 Ways to Improve Your Customer Experience: How Robotic Process Automation & Cognitive Document Automation Power Your Processes](#)

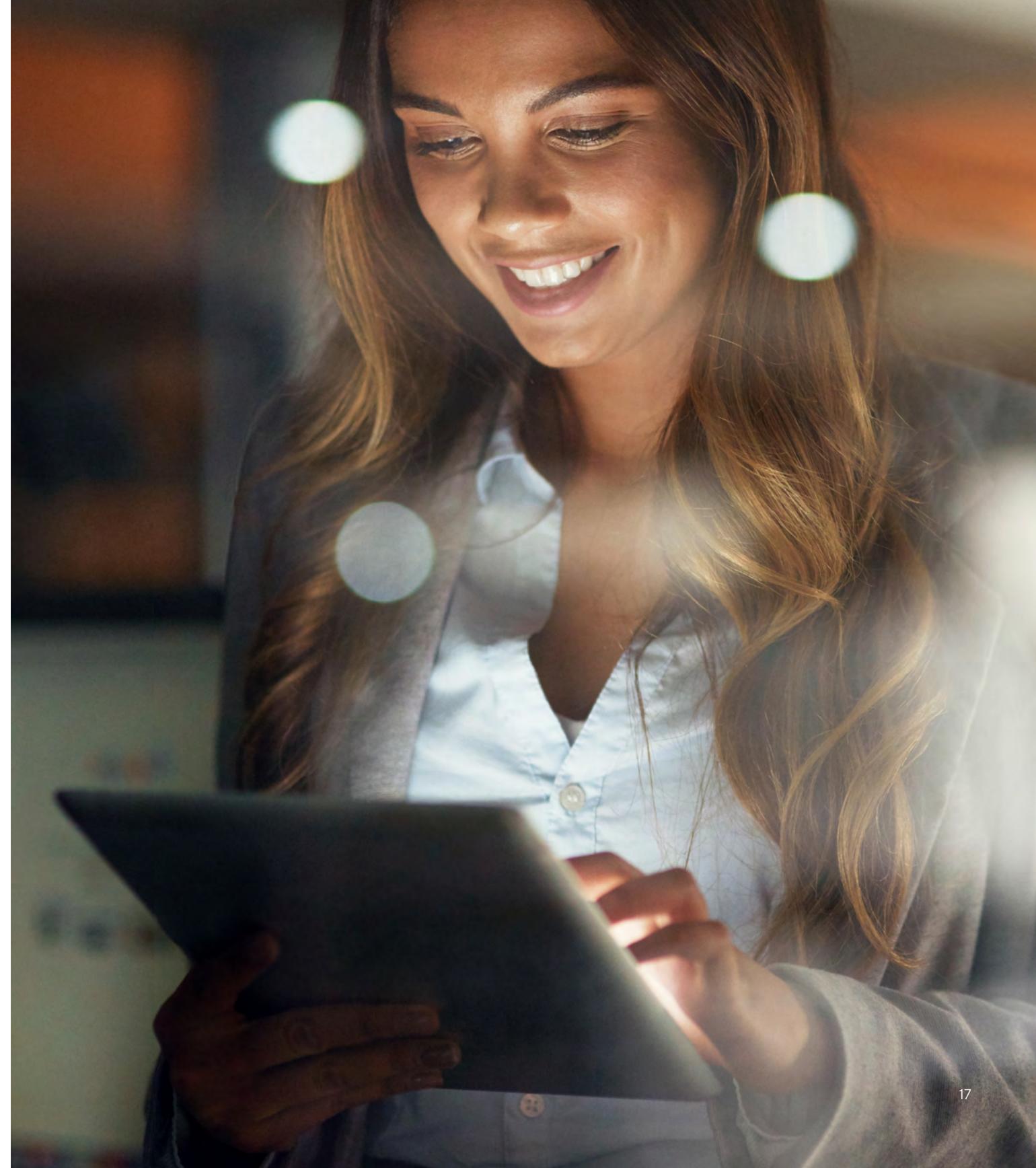
White Papers

[Cognitive Document Automation: It's Not Just About OCR](#)

[Cognitive Document Automation Success Metrics: The Truth About OCR Accuracy](#)

Video

[Improving the Customer Journey with Digital Transformation](#)





Discover how to extend your robotic processes to intelligently automate document processing.

Request a [demo of Kofax robotic process automation](#) and [cognitive document automation](#) software today.

FOR MORE INFORMATION ON HOW WE CAN HELP MAKE BUSINESS AS USUAL BETTER FOR YOU AND YOUR CUSTOMERS WITH ROBOTIC PROCESS AUTOMATION, CONTACT US AT INFO@KOFAX.COM, CALL 1-949-727-1733. OR [VISIT KOFAX.COM](http://KOFAX.COM).

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