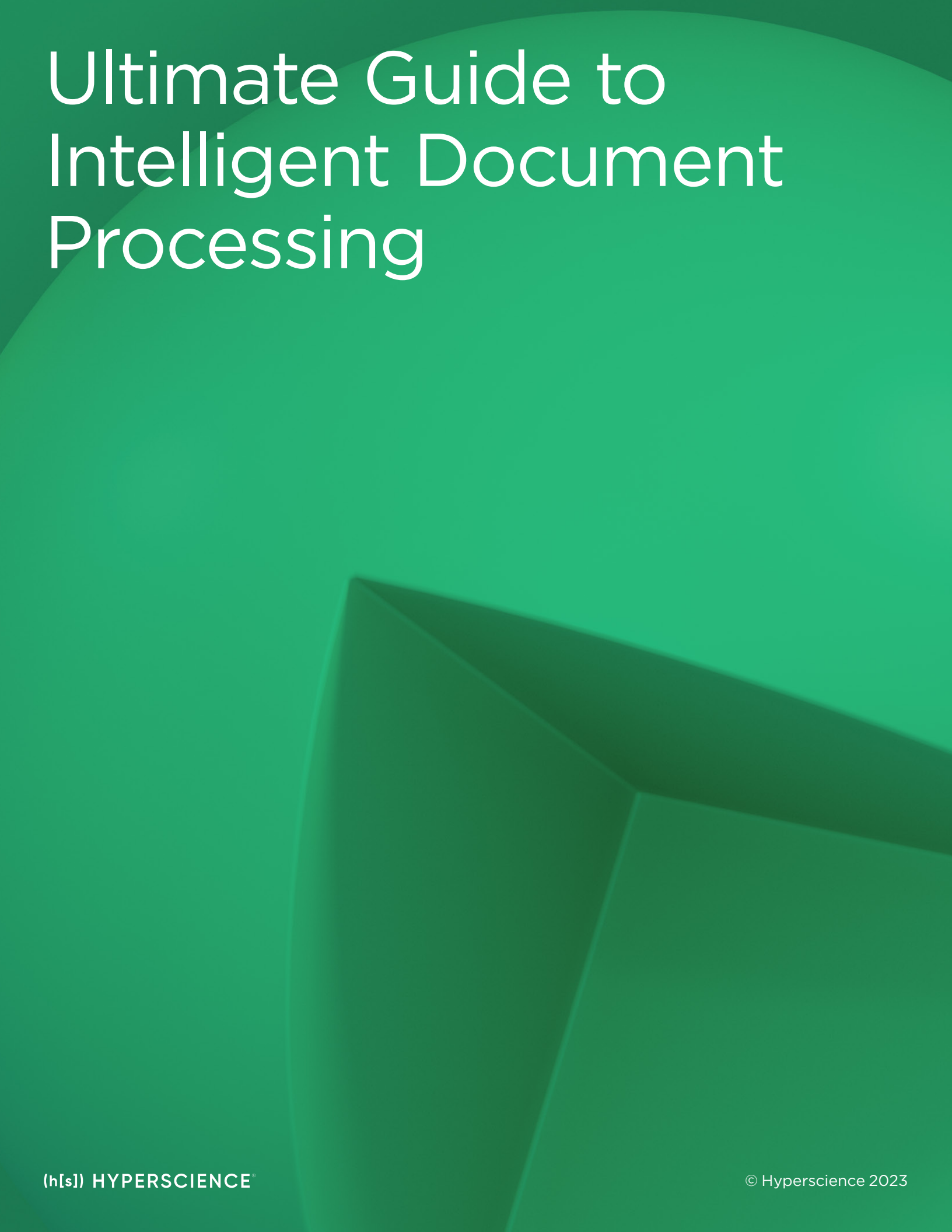
Ultimate Guide to Intelligent Document Processing



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01 Executive Summary

In a recent intelligent automation survey conducted by Deloitte, executives assessed the status of their automation initiatives compared to that of the "ideal organization." The results revealed an average rating of 5.04 out of 10 in 2021–2022, indicating that nearly half of the respondents identify their organizations as falling short of the ideal by 50%.[1]

The implication? **Businesses have a long way to go to fully mature process automation initiatives.**

The journey doesn't have to be one of major struggles, however. Many business processes stand to benefit from the efficiencies provided by automation, and none more so than document processing. Any time a document enters a business process, there's a use case for intelligent document processing (IDP). This technology relays information, streamlines business processes, and brings order to mountains of unstructured data.

The purpose of this guide is to help business leaders understand and find the right intelligent document processing solution—one that will accelerate digital transformation initiatives. With the right intelligent automation offering in place, organizations can get back to what matters most: improving the customer experience, decreasing operating costs and risks, and enhancing operational agility.

Key Insights

— The highest priority for CEOs is improving organizational agility by accelerating digital transformation

— Current automation initiatives are unable to reliably automate core business processes that run on unstructured document formats (e.g. PDFs, images, emails, paper documents), which account for up to 80% of an enterprise's data stack

— IDP puts the power of machine learning in the hands of organizations, helping them be more productive, efficient, and make better-informed decisions based on real-time information

[1] Deloitte, Automation with Intelligence

02 3 Reasons to Prioritize Automation

Outdated legacy technology and manual processes create a workflow bottleneck that affects all downstream processes, resulting in strained systems, overworked employees, and frustrated customers who are left waiting on answers.

Reliance on legacy tech products and manual processes permeates nearly every data-centric industry where millions of medical and insurance claims, loan applications, account opening forms, tax documents, and other information must be efficiently and effectively processed each day.

However, as concern over a looming recession grows, uncertainty is pressuring executives into a conservative mindset regarding automation investments. CFOs are actively involved in the technology buying process, and according to Forrester, when considering implementation, license, subscription, and maintenance costs, technology leaders see intelligent document extraction, task mining, and AI/ML platforms as having the highest perceived value.[2]

Among the many process automation offerings available, IDP stands out as a solution that provides a tempting value proposition—boasting well-document use cases, short time-to-value, and consistent ROI.

Here are three reasons companies are turning to intelligent document processing.

01 Improve Customer Satisfaction
02 Reduce Costs & Risks
03 Drive Revenue Growth

[2] Forrester, The Forrester Tech Tide™: Process Automation, Q1 2023, January 11, 2023

01 Improved Customer Satisfaction

Slow, manual processes and inaccurate and incomplete data negatively impact the customer journey. If your organization takes weeks to process a car insurance or mortgage application and the process is prone to errors and delays, you risk losing customers to competitors with modern systems that allow for immediate responses. Intelligent automation increases document processing throughput so that you can deliver a better, faster customer experience—decreasing churn and improving customer lifetime value.

41% of the policyholders who had difficulties with their insurers say they are likely or more likely to switch providers due to a lack of digital capabilities.[3]

[3] PWC, Moment of truth: Why insurance carriers should rethink their customer service models now

02 Reduced Costs & Risks

Every manual touchpoint increases the likelihood of a mistake. With intelligent document processing, however, organizations can decrease the overhead costs associated with manual data entry. By relying on machines that excel at data processing and manipulation, you can reduce clerical errors by up to 67%, as well as eliminate the downstream time and expenses required to correct them. Additionally, unlike RPA and traditional OCR solutions, machine learning-powered solutions learn from their mistakes, leading to better and more automated processes over time.

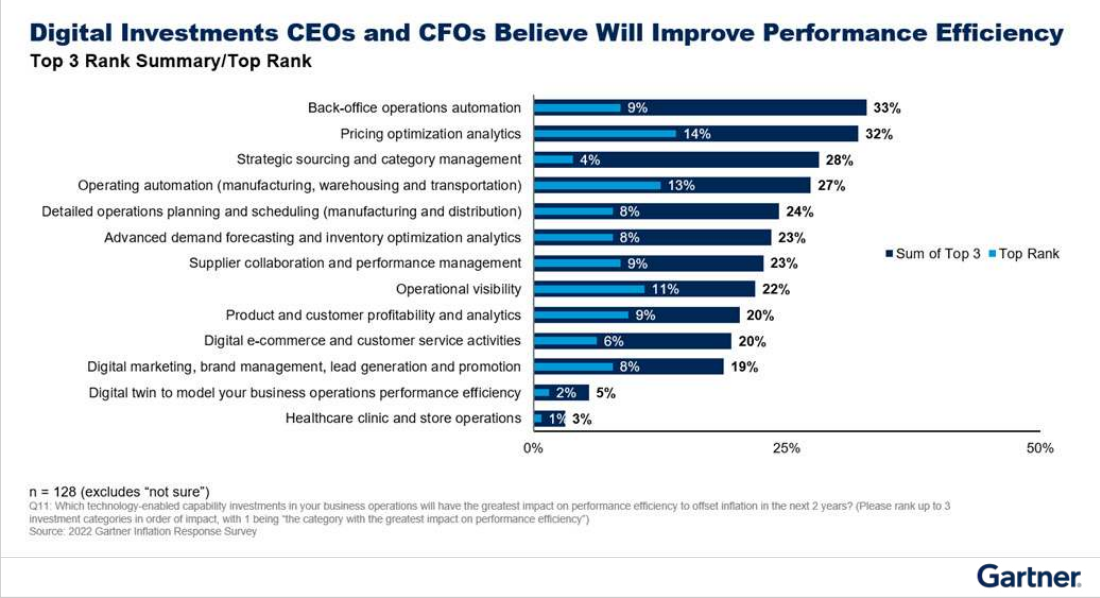
"Automating back-office workflows is a key to achieving efficiency gains across a number of areas including accounts payable, accounts receivable and internal IT services"

— **Randeep Rathindran**
Vice President of Research, Gartner Finance Practice[4]

[4] Gartner Press Release, Gartner Says CFOs Are Focusing on Automation Investments to Drive Down Costs, August 30 2022. *GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.*

03 Increased Revenue Growth

Intelligent automation can help companies streamline their operations, eliminate cumbersome manual workarounds and cobbled legacy tech, all while freeing up resources to deliver more innovative products and services that drive the business forward. According to Gartner research, automating back office operations is the top area where CEOs and CFOs see the greatest opportunity for efficiency gains.



Source: Gartner (August 2022)[5]

[5] Gartner Press Release, Gartner Says CFOs Are Focusing on Automation Investments to Drive Down Costs, August 30 2022. *GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.*

03 Limitations of Current Automation Approaches

Enterprises and government agencies continue exploring ways to digitally transform their operations. For many organizations, resilience and scalability are top of mind—two traits that provide a competitive advantage and protect against unexpected market changes.

Many of these organizations start their journey by implementing RPA software. These initiatives help to a point, but unfortunately, as business processes grow in complexity and scale, they require ongoing investment and upkeep—only to deliver incremental automation improvements.

Frequently, this is a result of misunderstanding what RPA is capable of accomplishing on its own. Companies invest in RPA without realizing they won't be able to make changes to their environment—such as investing in new third party tools—without dedicating people to attend to "bots" and monitor systems, screens, and fields that each automation point touches. Without someone "babysitting" the machine, the process breaks.

The reality is that most initiatives struggle to evolve beyond the automation of discrete tasks. Additionally, the cost and complexity of adding more "bots" results in the failure to meet expectations for automation at scale. Current automation approaches are not empowering businesses to accelerate digital transformation when it's needed most.

This is where intelligent document processing comes in.

04 The Document Processing Automation Landscape

There's no shortage of automation solutions on the market, making it difficult to find a solution that will add value to your organization and employees.

To successfully unlock the power of intelligent automation, business leaders need to focus on integrated AI solutions that streamline critical business processes today and help you adapt— moving forward to tackle increasingly complex and unique workflows and processes.

To kick off your evaluation, we dive into three of the most common automation solutions for document-centric processes below:

IDP

Intelligent Document Processing

IDP software captures data from documents (e.g. text, PDFs, scanned images, emails), and categorizes and extracts relevant data for further processing using artificial intelligence.

Apply When:

— You want to process volumes of documents with greater speed and accuracy than OCR

— You need to process more complex documents, such as low quality mobile captures or those that include messy handwriting

— You want to provide non-technical business users with new skills

Be Mindful When:

— IDP vendors claim 100% automation or accuracy out of the box

— Vendors won't discuss their underlying technology or allow you to test their offering in the real world: Many vendors claim to offer a "plug in anywhere" solution or to use open source AI, but for long-term returns, proprietary technology delivers greater accuracy and automation

— Vendor offerings don't account for human input: Look for an IDP solution designed for seamless human-machine collaboration, with built-in quality checks that learns over time and has a friendly UI

OCR

Optical Character Recognition

OCR converts scanned images into machine-encoded text, typically transcribing it character by character. It uses rules or template-based extraction, which requires users to train the system for each template type.

Apply When:

— You have standard, high quality documents to transcribe (e.g. machine-printed text, consistent handwriting in boxes, fields for extraction in the same location across pages)

Be Mindful When:

— Processing documents with handwriting or documents with poor image quality (scan lines, low resolution, etc...)

— Handling documents with unstructured layouts or documents that are highly variable in nature, such as invoices

— Adding new use cases, which can take several weeks (or longer) depending on complexity

Robotic Process Automation

RPA provisions software agents known as “bots” to imitate human interactions with software systems, complete repetitive tasks, and act either in concert with humans (attended RPA) or mostly autonomously (unattended RPA).

Apply When:

— You have structured, text-based inputs and outputs with clearly defined, repeatable manual steps to execute a particular business application

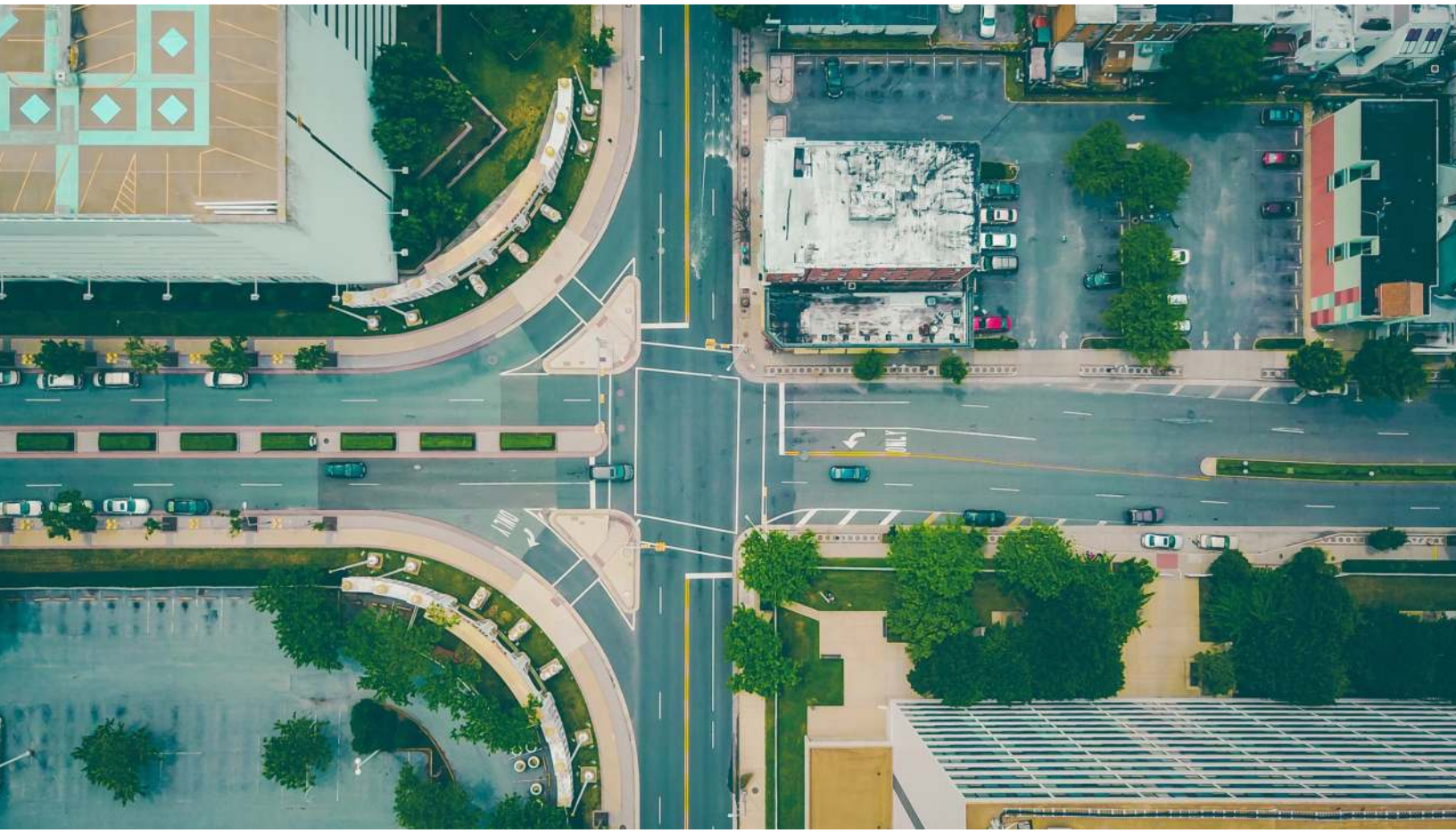
— You have simple to moderately complex processes that are stable, mature, and documented

Be Mindful When:

— You’re dealing with unstructured document data, such as images and PDFs: RPA relies on complementary technologies to classify and extract data from documents

— You want to automate more complex workflows: RPA automates processes as they exist today without taking into account whether the underlying process is flawed

— You wish to avoid add-on services like implementation or tying up resources in ongoing technical maintenance



05 Choosing the Right Solution: What Should You Prioritize?

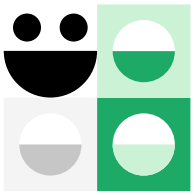
The need for IDP solutions has become apparent as companies increasingly rely on digital data and documentation. However, not all IDP solutions are created equal, and businesses should carefully consider their priorities when searching for the right solution.

As a leading provider of IDP solutions, Hyperscience carefully takes the following priorities into consideration, providing businesses with a reliable and effective solution.

Accuracy

Accuracy is number one on the list, as any errors during data extraction can result in life-altering ramifications for those caught on the wrong side, such as wrongfully denied claims or delayed payouts. For businesses, an accurate IDP platform is critical for reducing costs, ensuring compliance, improving efficiency, and enhancing customer satisfaction.

Hyperscience's unique approach prioritizes data extraction accuracy; customers define their desired accuracy targets, and our proprietary ML automates against it. When combined with ML models that understand human language and can read a wide variety of image imperfections, this approach allows higher levels of automation while keeping accuracy over 99% in both typed and handwritten documents.



Ease of Use

Ease of use is a high priority when searching for an IDP platform because it can increase adoption rates, reduce training time, reduce errors, increase efficiency, and improve customer satisfaction.

At Hyperscience, product roadmaps are created and guided by a user-centric approach. The result is a robust offering that is easy to deploy, and an intuitive UI with low administrative overheads—resulting in a rapid return on investment without the need to invest in technical teams.

Human/Machine Collaboration

To ensure quality control, handle exceptions, provide continuous learning, and handle complex unstructured data, modern IDP solutions use intuitive human-in-the-loop (HITL) functionalities. Without HITL, an IDP platform may suffer from lower accuracy or reliability, which can lead to errors in the data extraction process that will be more costly to fix downstream.

Using a human centered approach to automation, Hyperscience was designed for seamless collaboration between humans and machines—during any point in the automation process, the solution knows exactly when to involve an employee, but only when needed. This human input is then used to finetune underlying machine learning models, continuously making the solution faster and smarter.

Proprietary Machine Learning Models

While proprietary machine learning algorithms may come at a slight price premium, they offer several advantages over open-source models.

— **Customization:** Proprietary machine learning models can be more easily customized to meet the specific needs of your business or industry. These models are trained on your data and fine-tuned to meet your particular use case, leading to better accuracy.

— **Security:** Proprietary machine learning models can be more secure because they are not publicly available. With proprietary models, data never leaves the safety of your organization to access a public API. This helps protect your sensitive data and ensures that your document data isn't compromised.

— **Performance:** Proprietary machine learning models can offer better performance and faster processing times than open-source models, because they are often optimized for specific hardware and software configurations. This leads to more efficient processing.

With Hyperscience, proprietary ML models trained on customer data provide the best performance and highest data accuracy in the industry, even for complex use cases. Additionally, the application delivers continuous process improvement, further increasing an organization's resilience.

05

Reimagine Document Processing with Machine Learning

The business landscape demands a more advanced solution that can tackle the complex nature of modern-day processes. IDP provides just that, with its ability to handle a wide range of document types, extract data accurately and quickly, and reduce the need for manual data entry. Overall, IDP represents the future of document processing and provides businesses with a smarter, more efficient and cost-effective way to handle their document processing needs.

When it comes to IDP, Hyperscience is the most flexible intelligent automation platform for document processing and post-extraction data management, enabling organizations to improve customer satisfaction, increase revenue growth, and reduce costs.

Learn more about intelligent document processing

Contact sales

Watch a demo