THE ULTIMATE GUIDE

to Choosing the Right Robotic Process Automation Solution

Your how-to handbook for building and managing your digital workforce

KOFAX

REYNOLDS BUSINESS SYSTEMS

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How much time are your employees wasting on repetitive, mind-numbing tasks to collect and input data? For most organizations, the answer is still "far too much."

According to analyst Cognizant, employees spend 22% of their time on repetitive tasks. When it comes to reviewing and inputting data—and copying and pasting between internal and external systems such as websites, portals and enterprise and desktop applications—much of that work can be automated. But most of it isn't. Cognizant estimates that organizations automate just 25-40% of their workflows.[1] And, some analysts state that half of all automation opportunities are being missed.[2]

The problem isn't limited to one industry. Half of manufacturing companies still use manual processes to monitor changes and exceptions to their supply chains. Many transportation and logistics companies use manual steps for more than half of their processes.[3] More than a third of financial services organizations[4] and nearly half of U.S. insurers[5] still rely on manual processes.

These operational inefficiencies carry a significant cost to your organization and customers. The more manual processes an organization relies on, the more likely it has inefficient productivity, slow response times, higher error rates and dissatisfied customers and employees. Investing in the right robotic process automation solution can help your organization achieve operational excellence that optimizes customer engagement and reduces business costs.

Cognizant estimates that organizations only automate 25-40% of their workflows.[1]

[1] Cognizant
[2] Wired
[3] LinkedIn
[4] Kofax
[5] Clear Insights

CREATE A DIGITAL WORKFORCE

Organizations are turning to robotic process automation (RPA) technology to automate repetitive, manual processes and augment the work of the employee workforce to achieve operational excellence and reduce business costs.

RPA uses software "robots" and intelligent business rules to perform the actions that employees take within applications. This can be looking up and verifying information, or copying and pasting between websites, portals, legacy systems and other data sources.

It might sound complicated, but it's simpler than you think. Intelligent software robots are easy to design and deploy—requiring no complex APIs or IT involvement. If you can map what an employee is doing to collect and input data, you can create a robot to do it for them—in a few hours and without coding.

RPA systems integrate with your existing technology investments and business processes, instead of disrupting them. Effectively, RPA creates a digital workforce that works alongside your employees, freeing them to focus on areas where a human touch really matters.

A 2017 PwC survey found that 98% of C-level executives see an RPA program as important or extremely important to their business.[6] Deloitte found that 30% of surveyed companies believe process automation is more important to their business than implementing analytical software and cloud computing.[7]

It's clear that RPA is becoming a vital priority for modern businesses.

So what does this mean for you? Organizations capitalizing on RPA are realizing:

• Immediate cost savings of 25-50%

• 35-50% higher staff productivity, service levels and capacity

• 100% accurate data and a zero error rate[8]

• Average processing times 30-50% faster[9]

[6] PwC
[7] Deloitte
[8] Institute for Robotic Process Automation
[9] Virttia

KNOW WHAT IS AT STAKE

Make no mistake; RPA can make an immediate difference to your operations. But here's the catch: not all RPA solutions are created equal.

Some RPA solutions rely heavily on simple desktop recording practices that record the user's clicks and keystrokes. Others require coding skills to create a robot or complex deployment models where robots are deployed to desktops versus maintaining and running robots on a centralized server. Simply put, some solutions are limited and lack key enterprise features, and other RPA solutions are too complex and have architectures that become increasingly difficult to manage at scale. These solutions can often take several months, if not years, to fully implement and realize ROI.

This guide provides the features and capabilities your RPA solution must have in order to meet your business needs today and into the future:

NEXT-GENERATION RPA CAPABILITIES

Your RPA solution should provide comprehensive next-generation capabilities to fully address your organization's intelligent process automation needs. This includes business process management, process mining and cognitive document automation, which are essential to fully support your automation strategies. A unified solution that includes document, task and process automation capabilities will effectively orchestrate your digital and employee workforce needs of today and tomorrow.

Avoid "point" RPA solution that don't include these capabilities or those that bolt on core capabilities through partnerships. Solutions that lack these integrated features limit your ability to maximize improvements to business operations and customer engagement. And third-party integrations will create a non-fluid effort with disjointed set up, management and reporting.

SCALABILITY

Your solution should scale massively and be managed centrally. Robots that have to be deployed to individual desktops can be problematic in large enterprise deployments when it comes to maintaining hundreds or even thousands of robots. The ideal solution must be able to run tens of thousands of robots (automated robotic processes) from a cluster of enterprise servers.

Avoid an RPA solution that requires you to deploy robots to a desktop or virtualized environment. Look for an RPA platform with an integrated browser engine that allows you to run multiple robots concurrently on a single server versus a single robot executing on a virtualized desktop that requires access to a browser (e.g. Internet Explorer). This architecture provides greater scalability and a lower total cost of ownership.

SPEED AND SIMPLICITY

When you want to automate a new process, avoid a solution that requires you to wait weeks for a custom coding effort. You'll want to design and test new robotic automation processes in a few hours or less, which means the solution's design environment is simple enough for a business analyst to create a new robot without requiring coding skills. You should also be able to optimize robots themselves to work quickly—holding data in memory when passing from one source to another or turning off JavaScript for specific steps in a robot that is extracting data from a website. These types of configuration settings can mean a world of a difference in how fast a robot process can execute and complete a task.

RELIABILITY

As you roll out robots to automate hundreds of tasks, it's important the solution you are installing is reliable and will not be difficult to maintain. You want a solution that has built-in monitoring and analytics so you can oversee the health of the system and the robots you have deployed.

If the data that a robot is processing is incomplete or fails to pass a step in the process, human involvement and interaction with a robot must be possible. If unexpected errors occur, the solution should have clear, simple workflows for handling them. That includes notifying administrators when a robot fails to execute or when a key application is unavailable, with precise information about where the error occurred.

INTELLIGENCE

Your robotic digital workforce needs to include powerful artificial intelligence capabilities and be as smart and nimble as your employees. You should be able to apply sophisticated business rules within your robot process to understand complex content, extract the precise information you need, and transform and enrich the data based on the business needs of your organization. Look for a solution that applies intelligent screen automation to automatically identify UI elements to accelerate robot development. Equally important, the solution must apply AI-powered cognitive document automation to automate the acquisition, understanding and integration of documents and electronic information in order to support unstructured data like documents, emails and images. An AI-powered RPA solution will provide greater accuracy, efficiency and consistency and dynamically adapt to your evolving processes.

FLEXIBILITY

Things can change quickly, both within your organization and with the data sources you're using. If your solution is designed to a rigid set of assumptions, you'll spend a lot of time and effort keeping it up to date. Consider a solution that is code-free, logical and highly visual in design. Reusable process building blocks are also important to produce new robotic processes quickly—maintained and managed by business users and process excellence engineers.

ENTERPRISE-GRADE SECURITY

An enterprise-class RPA solution provides security at every layer to protect your data and organization. It should include granular, role-based access control and management, full integration with your existing LDAP/Active Directory identity infrastructure, secure storage of credentials and comprehensive audit logs of all user and system activity and changes to the data. Additionally, it should provide strong encryption for all communications—with management consoles, authentication systems and robotic servers.

ENTERPRISE-CLASS

Any automation tool can be made to look good in the lab, but there's a big jump between proof of concept (POC) and production. If you purchase a solution that wasn't designed from the ground up for enterprise-grade scalability, reliability and manageability, you're in for a painful process trying to add that after the fact.

Look for solutions that feature scale-out architectures, automated load distribution and built-in failover mechanisms for both robot servers and management consoles. It's best to centrally manage everything around the processes you're automating, from job scheduling to delegation and the distribution of robots. Your optimal solution is open and flexible, so you can publish robot processes with a standard Java, .NET, SOAP and RESTful interface that can be called by other business applications and processes, or create easily consumable applications for enterprise users.
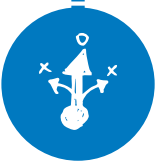
EXPANDABILITY

The right RPA solution can pay dividends on its own, but true business value is achieved when your RPA solution solves end-to-end automation challenges. Your solution should be able to completely automate and digitize end-to-end and system-to-system business processes, including legacy systems and a wide range of applications.

The key to scaling across the enterprise is extending the capabilities of RPA with features such as workflow orchestration, unstructured data capture, intelligent OCR, mobile and omni-channel, machine learning, advanced analytics and eSignature onto a single open Intelligent Automation platform.

Robotic Process Automation Considerations

DON'T BE AFRAID TO ASK TOUGH QUESTIONS OF ANY VENDOR:
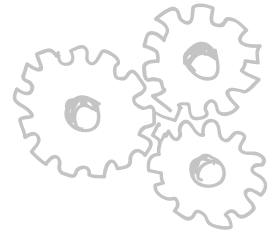
Does the solution provide complete intelligent process automation capabilities, including robotic process automation, business process management and document capture?
If so, how are these capabilities provided? Are they delivered through disjointed third-party integrations or they native to the solution with streamlined management and reporting?

Will my business analysts be able to create robots on their own?
And will the solution be powerful enough for my developers? Is the design environment a no-coding environment that makes it accessible and usable for the business analyst, but powerful enough for developers to build very complex robots for automated processes?

Can business analysts run attended and unattended automated processes on a single platform?
Does the solution provide an integrated platform where both automation approaches work in tandem so our organization can readily deploy either attended or unattended automation based on our RPA needs?

Are robots deployed and executed centrally on a server?

Or will I need to deploy robots to a physical or virtualized desktop environment, making it more difficult to manage, maintain and update robots?

How does the solution understand and integrate documents and unstructured data for my business processes?
Does it apply artificial intelligence methods like machine learning, neural networks and intelligent OCR to accurately and consistently extract and classify information from a document?

Is the software licensing flexible and will the total cost of ownership (TCO) align to the value of the solution?
Or is the software robot licensing model tied to virtual or physical desktop machines, there's extra cost for designers, analytics, and control tower, and the TCO is not aligned to the value given the technical resources, hardware and software required to support a large virtual desktop infrastructure (VDI)?

Don't select a vendor until all of your questions are answered satisfactorily—and be sure to watch out for these next 7 "gotchas" that a vendor might not tell you.

7 "Gotchas" that a Vendor Might Not Tell You
(or Doesn't Want to Bring Up)

When talking to a vendor about their RPA solution, beware if you hear these "gotchas":

"WE'VE ALWAYS HAD ROBOTIC AUTOMATION."

Beware of vendors who are simply retooling products or positioning themselves to try to capitalize on the RPA market. In all likelihood, the functionality will be limited to one area of the business and bolted into other technology you may not need. You'll find few vendors with a solid track record of building actual robots and who have hundreds of customers running thousands of them.

"WRITING CODE IS A REQUIREMENT."

If an RPA product is built around writing lots of code, you're not going to fully realize the benefits or the ROI you should expect from automation. Unfortunately, some RPA product design environments are intended for developers, not business analysts—meaning you'll have a much greater learning curve and more ongoing reliance on IT. The ideal RPA solution shouldn't require coding skills to design robots.

"THE COST OF SERVICES MAY BE HIGHER THAN THE SOFTWARE LICENSE."

You could end up paying more for services than the actual cost of the software. Don't fall into the trap of getting tied to a vendor's professional services team or a system integrator who's constantly billing you to build the next robot.
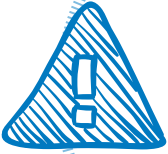
"THE PRODUCT REQUIRES EXTENSIVE TRAINING."

In some cases, system integrators (not even customers) need a few months to become proficient with an RPA product. That's a red flag for how well the product is designed to support rapid robot design, testing and deployment. A reasonable amount of upfront training and professional services can be expected to help your team build and deploy the first few robots. After that, you should have the necessary knowledge to build, deploy and manage the environment on your own.

"OUR SOFTWARE DOES IT ALL."

This is a classic overpromising marketing or sales pitch. The reality is, some RPA vendors just got started a few years ago and don't provide a full-featured solution that includes business process management, process mining and cognitive document automation. When you watch their presentation, look for the color-coded boxes in the platform that may indicate third-party components. For example, if part of your business problem is processing documents (paper and/ or digital), consider an enterprise capture offering, rather than a vendor whose presentation is full of colorful technology boxes.

"YOU DON'T NEED ARTIFICIAL INTELLIGENCE (AI) TO MAKE RPA USEFUL."

AI is important to robotic automation. Some vendors will say you can get some easy wins without it, but your ideal solution should have advanced learning technology to fully meet your organization's intelligent process automation goals—both in the short and long term. A sound RPA solution should include AI-powered cognitive document automation that applies techniques like machine learning and neural networks to automate the acquisition and understanding of your documents and processes. The solution should include intelligent identification of UI elements in virtual, image-based environments leveraging OCR for greater speed and precision in your robot development. It is also important to choose a solution that is open to third-party analytics services, such as IBM Watson and Google Cloud Machine Learning.

"OUR SOFTWARE IS ENTERPRISE-READY."

"Enterprise" is a misused term by many software vendors. If you're evaluating basic macro recording software that runs on the desktop, think twice. That is not enterprise software. If you have to run recorders on users' desktops, just imagine how complex the environment will get when you're deploying, running and managing updates for hundreds or even thousands of desktop recordings. A vendor whose robots run on a centralized server offers far greater control and manageability than one whose robots run on a desktop.

Your RPA Solution Checklist

Does the RPA solution you're considering provide all of the key features and functionality needed to maximize your return on investment? This checklist will help.

Required Features	Kofax RPA	Vendor B	Vendor C
Robot Capabilities			
Robots can interact with other computer systems and applications to automate repetitive user tasks	✓		
Desktop automation robots can perform attended tasks side-by-side with users and agents	✓		
Unattended robots can take over entire tasks from a user and perform them silently in the background	✓		
Robots with cognitive document automation capabilities can classify, understand and extract information from documents by using OCR and machine learning capabilities	✓		
Robots can be executed on-demand (e.g. by a user), triggered by any other event, or scheduled	✓		
Scalability and Performance			
Scale out architecture, built-in failover and cluster servers can scale and support running thousands of robotic processes	✓		
Powerful server side in-memory processing can eliminate the need for additional virtual desktop environments and lower total cost of ownership (TCO), for the following types: • Web applications or websites • Email through web client • Files like Excel and PDF • Mainframe and Terminal • Databases • Data like JSON and XML • File systems	✓		
Advanced production management can help to easily setup additional servers or instances when required; robots are automatically distributed to available resources	✓		
Reliability			
Software does not rely on recording the clicks and keystrokes of a user, which isn't easily usable by other users and is harder to maintain	✓		
Robots can alert an administrator when an application or web source (e.g. website) changes and pinpoint where in the robotic process an error has occurred, allowing for quick resolution	✓		

Required Features	Kofax RPA	Vendor B	Vendor C
Breadth of Integration			
Can handle all varieties of legacy and cloud applications, terminal applications and data sources like web sites, portals and Excel, as well as databases, files (PDF), XML, etc.	✓		
Has native in-memory automation connectivity into key applications like SAP and native automation connectivity for terminal applications (IBM 3270, 5250, vt100)	✓		
Server-side web integration for web applications, web sites and portals can provide the ability to run multiple concurrent web sessions on a server without needing to connect to separate virtual desktop or server that has a browser (e.g. Internet Explorer)	✓		
Can integrate with remote desktop environments such as Citrix or other pixel/image-only based environments with Intelligent Screen Automation (powered by computer vision technologies)	✓		
Can provide auto-generated Synthetic APIs (REST/web services) to integrate with other applications and workflow processes	✓		
Can easily integrate a robot with advanced learning systems, such as IBM Watson, to understand content and handle exceptions versus involving humans	✓		
Comes with business process management and process mining capabilities	✓		
Unified Robot Design and Management			
Can provide a single unified design environment versus multiple design tools for learning an application and designing the process	✓		
Visual interface can enable robot builders to visually recognize applications, screen areas and objects in real-time while building robot automation workflow	✓		
Applications, pop-up windows and other individual screen components or widgets can be automatically assigned to their individual automation tab in a design studio, for individual assigning of automation processes	✓		
Can quickly add business logic that transforms and validates the data; can connect multiple data sets together	✓		
Business rules can be edited during testing and debugging of robotic processes; can perform real-time testing and debugging against target application	✓		
Allows for more complex processes with different processing paths, other than the expected "happy path" linear process that recording tools rely on	✓		
Can provide a project synchronization feature in a design studio and management console that supports robot design, developer collaboration and file conflict resolution, including sharing of robots, types, snippets, resources and credentials	✓		
Design studio features design, deployment, QA and production support tools, including performance dashboards, a scheduler and viewers for data sources	✓		

Required Features	Kofax RPA	Vendor B	Vendor C
Unified Robot Design and Management (Cont'd)			
System/business analyst users can design robots — without coding — yet the software is powerful and flexible for IT developers	✓		
Can apply advanced business logic and workflow rules to deliver more intelligent software robots	✓		
Integrated real-time testing and debugging environment can provide visual step-by-step execution and breakpoints useful for error checking	✓		
Management and Administration			
Solution can be managed through central point of control to avoid compliance risk	✓		
Has credential management for different environments such as development, test and production systems	✓		
Can centrally deploy robots rather than deploying them to individual desktops or virtualized desktop environments	✓		
Provides flexible choices on when and how a robot gets executed, including scheduling, being invoked by a user, an application or a specific event in an external workflow process	✓		
Provides comprehensive process mining, including robot and system monitoring, analytics, and process intelligence to ensure things run smoothly, and process administrators are able to measure processes and areas where improvements can be made	✓		
Security			
Can easily integrate existing user access roles for security purposes; can easily connect to Windows Active Directory or LDAP to maintain single-sign-on credentials	✓		
Has segmented user access and role management	✓		
Enables auditing of all user and system activities	✓		
Provides secure access to a management console using HTTPS and user authentication	✓		
Ensures secure communication with servers using SSL and authenticated connections	✓		
Provides secure storage of credentials using Java Key Store and strong encryption	✓		

Required Features	Kofax RPA	Vendor B	Vendor C
Licensing Model			
Puts no limits on number of robots or robotic processes that can be designed	✓		
License is consumed only while robot is running, license is not tied and locked to a desktop even if not used	✓		
No licenses are required for design environment to build the robots like designer seats	✓		
No additional licenses are required for production components like control tower or analytics	✓		
Any robot can consume a license from the available license pool; no specific licenses are required for robot type such as attended or unattended robots	✓		
Flexible licensing fits a wide range of use cases, including those long-tail processes that always seem to go unaddressed	✓		

Power Your Processes. Empower Your Business.

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