

A KEY CAPABILITY IN YOUR AUTOMATION TOOLBOX

More organizations are seeing the value of Robotic Process Automation (RPA). In many cases, it's an integral technology in the overall automation strategy. When implemented for the right use case, RPA can help drive efficiency, increase productivity, and cut costs by automating repetitive and manual tasks.

RPA – combined with fully unified business process management (BPM), case management, decision rules, and artificial intelligence (AI), – provides the complete set of automation capabilities that organizations need for all use cases. This powerful union enables the orchestration of next generation blended workforces – people, bots, and AI – in frictionless workflows, even in the absence of modern APIs.

In this paper, we'll take a deeper look at RPA, as well as other automation technologies, that can help your organization achieve a holistic automation strategy.

What You'll Learn:

- **What is RPA?**
- **Signs that RPA might be right for you.**
- **The best use cases for RPA.**
- **How to recognize when to expand beyond RPA.**
- **Other critical automation technologies.**
- **How to get started with RPA now.**

What is RPA?

RPA is a technology best suited for task automation (automating repetitive and rule-based tasks performed by people) or connecting to systems that don't use APIs.

For more perspective, consider the definition of RPA Software, according to industry analyst Gartner:

“ RPA tools are designed to mimic the same “manual” path taken through applications by a human using a combination of user interface (UI) interactions or by using connectors to client servers, mainframes or HTML code. An RPA tool operates by mapping a process in the RPA tool for the software “robot” to follow computer pathways between screens and various data repositories. An RPA tool can be triggered manually or automatically, move or populate data between prescribed locations, document audit trails, conduct calculations, perform actions, and trigger downstream activities.¹ ”

For a real-world scenario, take the example of a basic order to cash process that includes several different steps:



¹Tornbohm, Cathy. "Market Guide for Robotic Process Automation Software." Gartner, November 7, 2016. ID: G00309392

Let's assume delivering the order requires an employee to access a third-party shipping vendor's website and then perform the following manual steps:

1. **Log in to customer order management system.**
2. **Search and open a customer order.**
3. **Log in to the shipping vendor's website.**
4. **Copy and paste data from order management system to shipping vendor's website.**
5. **Submit the order for shipment using the shipping vendor's website.**
6. **Copy tracking number from shipping vendor's website to customer order management system.**
7. **Mark order as shipped in order management system RPA and Enterprise Automation.**

Now, imagine you're shipping thousands of orders every day. These are the kinds of manual, repetitive tasks that RPA can easily automate, freeing employees to focus on varied, more important work.

For large enterprises with expansive, complex operations, these types of tasks are everywhere. And they can be mind-numbing to the extent that humans make mistakes along the way.

However, bots don't get tired and work 24x7. Imagine a digital workforce of software robots logging into systems, using the graphical user interface exactly like a human would, only at lightning speeds with no mistakes – and no breaks. That's how RPA software works.

But, what about from a value standpoint?

What does RPA deliver?



By using RPA, organizations can simplify work and achieve more in less time. And it all happens while freeing employees to focus on more meaningful work.

Three Signs RPA is for You.

1. You have employees challenged by the swivel-chair effect.

If you've ever had to work across multiple systems to do a single job, you know the "swivel chair" effect. You get information from one screen, then swivel your chair to the other and pull info from there – again and again. RPA can streamline and accelerate these steps, from logging into systems and getting the data to performing the task.



Lesson learned: Use RPA as a way to reduce employee frustration over repetitive, error-prone tasks and free resources to focus on more strategic efforts and projects.

2. You have a long backlog of integration needs.

Building enterprise applications requires integrations with existing business systems like ERP and CRM. This can be daunting, especially for large organizations with hundreds (or more) of disparate business systems. Are you experiencing bottlenecks on your path to better customer satisfaction and greater operational efficiency? If so, RPA is a technology to consider.



Lesson learned: RPA can help integrate business systems, enabling you to leverage your existing technology investments and avoid time-consuming, costly integration projects.

3. Many of your tasks require higher levels of compliance and auditability.







Many organizations must know precisely how a particular task is completed, then record it for audit and compliance purposes. With RPA, a "digital worker" performs a predefined set of actions, without departures from the standard flow of work, further establishing better process accuracy, higher levels of compliance, and reduced risks. Additionally, the bots' tasks are automatically captured and logged, resulting in easy, accurate auditability.



Lesson learned: RPA can serve as a tool to improve compliance, governance, auditability, and risk management.

What are the Best Use Cases for RPA?

Look for the following attributes to identify tasks with the greatest ROI and automation potential using RPA:

TASK ATTRIBUTES	DESCRIPTION	OTHER CONSIDERATIONS
 RULE-BASED	Activities that can be performed by following well-defined rules are a good fit for RPA.	Consider adding cases management or enterprise workflow in the mix for more complex processes and decisions that require human judgement.
 HIGH VOLUME	The higher the transaction volume, the higher is the ROI potential of RPA.	In some cases, low-volume tasks can also be a good fit if there are needs for reducing human error to improve compliance and to manage risks.
 LOW EXCEPTIONS	Tasks with limited variations and fewer exceptions are great fit.	Consider case management or enterprise workflow solutions for more dynamic processes.
 STABLE AND WELL-DEFINED PROCESS	Tasks that are mature and stay relatively unchanged are good fit.	Process that change often require changing the RPA scripts. The resulting overhead may defeat the purpose of automation.
 LOW SYSTEM CHANGE	Process, that require limited or no changes to existing systems are a good fit.	If the underlying system needs change then it defeats the purpose of RPA as a non-invasive technology.
 STRUCTURED DATA AND READABLE ELECTRONIC INPUTS	Tasks that require working with structured data and readable electronic inputs (Excel, Word, PDFs, etc.) are a good fit.	Consider adding optical character recognition (OCR) and other AI technologies to the mix if the data is unstructured or in a format that is not readable (like images).

RPA tasks can face high errors rates, even when the right use case is selected. Common changes, such as updated account passwords, new versions of software, and internet browser updates can all impact the success of a bot completing a task. It is important to ensure a mechanism exists to monitor and immediately notify users of failures (regularly referred to as exception handling) to update bot workflows when necessary. This key capability will help optimize bots and improve ROI for your RPA investment.



Lesson learned: Not all manual tasks are a good fit for RPA.



Three Signs You Can Get More Out of RPA (and what to do about it)

RPA is a great capability (for the right use case) that relies on a digital workforce for task automation by mimicking user actions. It speeds work while cutting costs.

But how do you know you're ready to expand the scope of automation beyond RPA? And what can you do about it?

Here are a few signs to look for, along with actions that you can take now to get more value from your automation initiatives.

1. You want to drive greater enterprise automation but continually run into tasks and processes that are not a good fit for RPA alone.

If true, this is a clear sign RPA may not be enough to deliver on your automation goals. RPA is great for automating high-volume, rule-based tasks within stable, mature business processes. As a result, RPA can address only a subset of most organizational automation needs.

Gartner

“Enterprise architecture (EA) and technology innovation leaders often get pressured by their business partners to focus on the tactical needs of routine process automation with RPA. RPA may provide quick relief as a noninvasive form of integration. However, processes are not always simple, routine, repetitive and stable. They may be long running, and they often involve intelligent automated decision making and optimization. The real challenge – to scale beyond the initial few low-hanging fruits of routine processes – cannot be solved by a single tool or with siloed strategies.”²

²Gartner, Move Beyond RPA to Deliver Hyperautomation, Saikat Ray, Cathy Tornbohm, Marc Kerremans, Derek Miers, 16 December 2019.

- **What about dynamic tasks that change often?**
- **Long running processes that stay in flight for months?**
- **Tasks that require human judgments?**
- **Tasks that require complex rules and decision management?**

These represent some of the tasks that can be automated but aren't good use cases for RPA.



Action to take: Explore other technologies, like BPM, case management, and AI in combination with RPA that will help you automate business processes that are dynamic, long-running, and have complex rule and decision management needs.

2. You want to achieve orchestration of digital and human workforces.

New business applications will depend on the orchestration of digital and human workforces, along with AI, to operate in frictionless workflows for maximum impact.

In many of today's RPA implementations, people (mostly in IT) oversee and approve the tasks performed by bots and must manually manage errors or exceptions that occur while bots process tasks. This can lead to significant overhead and low ROI.

New applications will require automation coupled with the intelligence to programmatically identify and assign tasks to humans only in the case of exceptions. Assigned tasks can be associated with a completion time, escalated, or prioritized as needed to make sure the collaboration between digital and human workforces is productive and the overall process stays on track.



Action to take: Orchestrate workflows between your people and the digital workforce. Scale bots without creating unnecessary overheads.

3. You want automation initiatives to make an impact on your business outcomes.

RPA provides a proven solution for enterprises burdened by the inefficiencies and challenges associated with systems lacking APIs and manual processes. However, it's not the end-all-be-all of automation.

According to Gartner, organizations should:

“*Identify the DigitalOps tools that are closely aligned to your automation roadmap. Assess different technology markets and create a progressive investment plan to effectively deliver tactical and strategic business values.*”³

Building the right roadmap requires a hard look at different automation technologies, as well as an understanding of how they work together and their specific limitations. Organizations won't regret putting in the effort to understand how technologies like RPA, BPM, decision rules, AI, and low-code can combine to build and execute an overall enterprise automation strategy.



Action to take: Build an Automation Center of Excellence (COE) that considers how core enterprise automation technologies like RPA, BPM, decision rules, AI, and low-code can be used together rather than working in isolation.

Automation Beyond RPA

RPA is about task automation – routine, high volume, and low change tasks and use cases. Full-stack automation capabilities also include workflow BPM, decision rules, AI, and case management. So what's the difference among the automation capabilities?

The simplest way to put it?

- **What about dynamic tasks that change often?**
- **RPA is for task automation – routine work performed by people.**
- **Workflow is for process automation – the automation of overall business processes.**
- **Decision rules manage the business logic to make decisions.**
- **AI injects greater intelligence into automation.**
- **Case management enables people to seamlessly handle exceptions as they arise.**

³Gartner, Move Beyond RPA to Deliver Hyperautomation, Saikat Ray, Cathy Tornbohm, Marc Kerremans, Derek Miers, 16 December. 2019.

Bringing them all together delivers full-stack automation, ensuring you have the right technology for the right use case to truly deliver end-to-end orchestration.

Want more detail? Here are some additional differences:

	BPM	RPA	AI	DECISION RULES	CASE MANAGEMENT
IMPLEMENTATION APPROACH	Create new business process. Enhance existing business processes. Enable continuous process improvement.	Task automation with minimal process re-engineering.	Enhance existing workflows by using pre-trained machine learning models or your own models to deliver predictions, inferences, and context to provide insights	Standard Decision Model and Notation	Enable exceptions to hand-off between bots and people with a full audit trail to improve processes over time.
INTEGRATION APPROACH	Integrate with existing business systems like CRM and ERP programmatically. Integration is system-to-system.	Integrate with existing business systems through a user interface. Software robots mimic actions of humans.	Integrate directly with existing systems requiring minimal, if any, workflow modifications.	Integrate directly with existing systems via workflows.	Integrate with existing business systems to handle exceptions and ad-hoc tasks.
APPLICATION INTERFACE	New web/mobile applications, including smart forms, dashboards, and other modern interfaces, are created.	New interfaces are not created. The robots work with existing UIs.	New interfaces can be created to enable "human-in-the-loop" actions.	Visual no-code decision modeler.	New web/mobile applications, including smart forms, dashboards, and other modern interfaces, are created.
APPLICABILITY	Business process automation.	Automate, manual rule-based tasks performed by people	Automate tasks requiring insight to increase customer engagement, improve worker productivity and operational efficiency.	Decision points in any workflow that require complex logic.	Dynamic case management and exception handling.

Enterprise automation initiatives can greatly benefit from bringing these technologies together to provide a flexible framework that can enable complete automation and increased agility while helping organizations define a comprehensive long-term automation strategy.

Here are some benefits that can be achieved by using RPA, workflow, decision rules and AI together.

Full-Stack Automation

Consider RPA as a piece of an overall process where repetitive and rule-based tasks are automated. Now plug in those tasks as part of a larger and more complex business process handled by BPM, along with case management, decision rules, and AI capabilities. Voila!

You can automate tasks and larger business processes across your entire organization!

You also get complete visibility into the overall business processes, as well as the audit trails for a comprehensive compliance and risk management strategy.

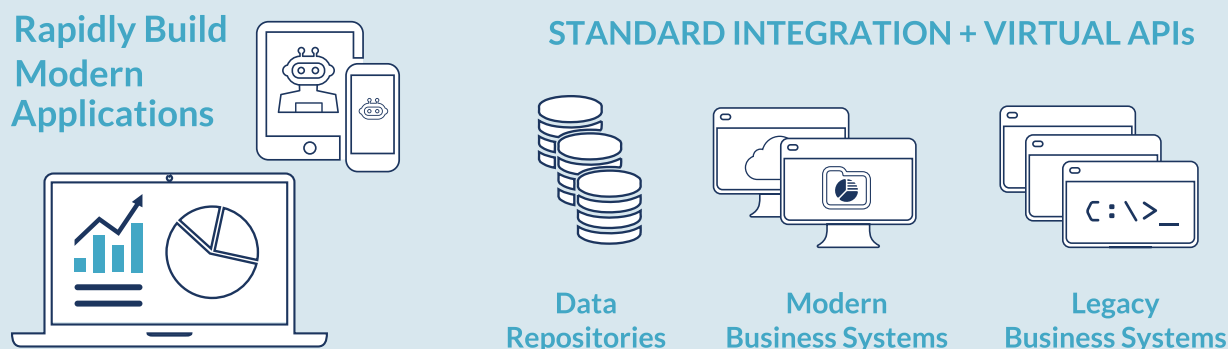
Rapid Digital Transformation Using Virtual Integrations

It's a fact of life for many organizations; you have business systems that are difficult to integrate. RPA can rapidly enable virtual integrations with systems that otherwise may take months or even years to build. These seamless integrations empower organizations to deliver modern applications fast, regardless of the underlying complexities of their IT systems.

For example, RPA can be used to access a database containing .pdf documents; AI-based optical character recognition (OCR) can recognize and extract the required data; and people can intervene only when needed.

APIs or web services can replace RPA-based integrations whenever an older system gets replaced with a modern business system or whenever programmatic integrations are available.

The net result is a greater ability to define a clear, long-term transformation strategy with unprecedented flexibility.

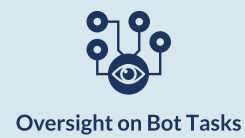


Modern Workforce Orchestration

You can achieve seamless collaboration between people, bots, and AI using RPA in concert with other automation technologies.

- **Automate the handoff of tasks between people and bots and maintain a complete audit trail of interactions.**

- **Direct tasks and exceptions to the right person or the right team.**
- **Associate the assigned tasks with a completion time, or escalate and prioritize as needed to make sure the collaboration is productive and the overall process stays on track.**



Bringing it All Together

Imagine logging into your bank’s mobile app, speaking to a virtual assistant about your needs, and getting issues resolved immediately. For a typical large enterprise with hundreds of IT systems, an application like this requires significant behind-the-scenes plumbing.

Leading organizations are aggressively working toward automation and providing cutting-edge customer experiences like these. Many are in the process of transforming how business gets done – a “zero-touch” digital self-service environment.

Creating seamless customer experiences and automating the plethora of related business processes require organizations to use multiple automation technologies. Bringing these automation technologies together and understanding the way to best use them in concert makes all the difference:

- **The difference between being a laggard and being a leader.**
- **The difference between being disrupted and being the disruptor.**
- **The difference between simply surviving and truly thriving.**

How to Get Started

Appian RPA is a cloud-native technology for robotic task automation that increases efficiency, reduces errors, and lowers costs. Appian provides the fastest way to drive process automation across the enterprise and at the lowest total cost of ownership with:

- **Full-Stack Automation** – Fully unified RPA, BPM, decision rules, AI, and case management provide the right automation technology for the right use case. This enables full orchestration of the next generation of blended workforce – people, bots, and AI – in frictionless workflows (even in the absence of APIs).
- **Powerful Governance** – Centrally manage, monitor, and deploy bots across the organization to increase scale and performance. All the key features (process prioritization, ROI analysis, impact analysis, auditing, etc.) needed to run an automation COE.
- **Secure, Cloud RPA** – Appian RPA runs on Appian Cloud, which is secure, globally available, and trusted to run mission-critical, enterprise applications for the world's largest organizations.

Learn More About the Appian Low-Code Automation Platform

The Appian Low-code Automation Platform allows you to take full advantage of RPA in concert with other automation capabilities to truly automate your enterprise.

To get started on your path to an automated enterprise, [sign up for a demo](#) and see how the Appian Low-code Automation Platform can transform your business.



Visit appian.com/RPA to learn more.