Magic Quadrant for Robotic Process Automation

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Robotic process automation (RPA) remains a popular software market for improving operational efficiency with tactical automation. This Magic Quadrant evaluates 16 enterprise RPA vendors to help application leaders make the best choice for their enterprise's task automation needs.

Strategic Planning Assumption

By 2025, 90% of RPA vendors will offer generative-AI-assisted automation.

Market Definition/Description

This document was revised on 24 August 2023. The document you are viewing is the corrected version. For more information, see the [Corrections](#) page on gartner.com.

Gartner defines robotic process automation (RPA) as the software to automate tasks within business and IT processes via software scripts that emulate human interaction with the application user interface. RPA enables a manual task to be recorded or programmed into a software script, which users can develop by programming, or by using the RPA platform's low-code and no-code graphical user interfaces. This script can then be deployed and executed into different runtimes. The runtime executable of the deployed script is referred to as a bot, or robot.

RPA is used across numerous business functions for tactical task automation. Business and IT users can leverage RPA to:

- Move data in or out of application systems without human interaction (unattended automation). Scripts are designed to replicate the actions of a person interacting with those systems or documents, which usually do not have available APIs. The goal is to automate and complete a task successfully without human intervention. Typically, unattended automation is triggered by a system and bots executed on a server.

- Automate tasks with a human in the loop (attended automation). RPA can extract information from systems and related documents, shaping it and preparing it for consumption by a human at the point of need. Typically, attended automation is triggered by a human and bots executed on a local device.

The must-have capabilities for this market include:

- Screen scraping, with *at least five* of the following UI connectors: Selenium IDE, Microsoft Active Accessibility (MSAA), Microsoft UI Automation, Java Application Connector, SAP WinGUI, Windows GUI or mainframe emulators

- Ability to record a task and convert it into a script that can be deployed

- Support for both attended and unattended automation

- Ability to orchestrate and administer users, scripts, and the runtime, including configuration, monitoring and security

- Support for multiple bot runtimes, such as a desktop, an on-premises server, public or private cloud, and virtual machines

The standard capabilities for this market include:

- Support for script development with standard programming languages or vendor-specific, low-code representations (including graphical user interfaces for citizen development)

- Native optical character recognition (OCR) and/or integration with a third-party OCR tool to capture semistructured or unstructured data

- Intelligent document processing (IDP) features such as image capture, classifications and model training

- Computer vision with AI-/ML-driven UI resilience models to track application UI element changes and update a bot to respond accordingly

The optional capabilities for this market include:

- Workflows via task mining

- API-first automation via connectors, including HTTP/REST, SOAP, Open APIs and others

- A low-code user experience (UX) for building GUI front ends for automation

- Built-in, AI-driven smart workflow development with guided navigation or chatbot-assisted features

- Ability to help an automation center of excellence (COE) to manage operations, and track and report benefits

Magic Quadrant

Figure 1: Magic Quadrant for Robotic Process Automation

Source: Gartner (August 2023)

A Gartner Magic Quadrant chart with quadrants labeled CHALLENGERS (top left), LEADERS (top right), NICHE PLAYERS (bottom left), and VISIONARIES (bottom right). The vertical axis is labeled ABILITY TO EXECUTE and the horizontal axis is labeled COMPLETENESS OF VISION. Vendors plotted include UiPath, Automation Anywhere, SS&C Blue Prism, Microsoft, NICE, Cyclone Robotics, Samsung SDS, EdgeVerve Systems, Nintex, IBM, Laiye, Hyland, Pegasystems, Appian, SAP, and Salesforce. As of July 2023. © Gartner, Inc.

Vendor Strengths and Cautions

Appian

Appian is a Visionary in this Magic Quadrant. Its product, Appian RPA, focuses on complementing the rich business process automation (BPA) capabilities available within the Appian Platform. Appian also offers a low-code application platform (LCAP), rich multiexperience capabilities, process mining and decision automation. Appian RPA runs as a cloud service.

Appian has geographically distributed operations. Its customers tend to be large enterprises in the financial services industry and the government sector.

Appian's RPA product roadmap includes development of robot pools for task delegation and integration of Appian's AI skills.

Strengths

- Market understanding: Appian recognizes the role of RPA in wider automation use cases and provides a single hyperautomation solution. Appian's broader platform provides RPA, BPA, LCAP, intelligent document processing (IDP) and multiexperience capabilities, which are delivered via a cloud and underpinned by an integrated data fabric. Organizations with a mature approach to hyperautomation may benefit from Appian's integrated platform.

- Product portfolio: Appian's platform focuses on end-to-end process automation and other high-value applications that require sophisticated rules and analytics. Appian supports RPA as one tool to enable broader hyperautomation use cases. Its RPA product augments BPA, decision support and low-code user interfaces with a common data fabric.

- Ecosystem: Appian's sales are increasingly partner-driven. Appian now claims to have over 20,000 developers trained on its platform. Its marketplace, the Appian AppMarket, has over 600 components, extensions and frameworks to accelerate RPA development.

Cautions

- RPA focus: Appian's narrative about its wider BPA and LCAP automation assets overshadows its RPA offering. Appian positions its RPA product as a complementary feature of its BPA and LCAP. Customers seeking a stand-alone RPA product might not believe they require Appian's broader process automation focus.

- Visibility: Gartner rarely receives inquiries about Appian RPA from buyers, unless they already use other Appian Platform features. Many RPA buyers do not shortlist Appian and are unaware that Appian offers a free community edition that includes some of its RPA capabilities. Appian is investing heavily in brand awareness campaigns in an effort to gain visibility with a wide range of buyers.

- Product features: Appian does not support an on-premises RPA orchestrator. Although Appian has its own process discovery solution, it does not yet autogenerate RPA workflows from task-mining actions. Some Gartner clients have indicated that the design experience of Appian's RPA lacks the rich functionality of its main BPA/low-code platform and that debugging requires more technical expertise. Appian provides limited support for programming languages other than Java (such as Python and .NET), unlike many other RPA vendors.

Automation Anywhere

Automation Anywhere is a Leader in this Magic Quadrant. Its RPA product has been rebranded as the Automation Success Platform, which offers capabilities beyond RPA. Automation Anywhere's RPA is available on-premises and in the cloud. Automation Anywhere's cloud-native automation offerings include RPA, API capabilities, process orchestration, digital automation assistance (Automation Co-Pilot), artificial intelligence (AI)/machine learning (ML) tools and analytics. Process discovery, a center of excellence manager, document automation and marketplace integration (Bot Store) are available as additional options.

Automation Anywhere has global operations. Its customer base includes large enterprises and small and midsize businesses (SMBs).

Automation Anywhere's automation roadmap includes expansions of process orchestration, API and generative AI capabilities (for its Document Automation solution and Automation Co-Pilot) across the platform. It also includes a shift from itemized pricing to use-case packaging to align better with business outcomes.

Strengths

- Innovation: Automation Anywhere has a reputation for developing innovative features, including AISense for computer vision, IQ Bot for AI/ML enablement, multipersona development, the cloud-based Automation Success Platform and the Automation Anywhere Robotic Interface (AARI) for user experience (UX). Automation Anywhere recently integrated OpenAI's ChatGPT with its Automation Success Platform. The OpenAI ChatGPT package can streamline automation processes by bringing generative AI capabilities directly to Automation Anywhere's Control Room.

- Market understanding: Automation Anywhere embeds automation in business applications, so that users can realize the benefits of automation without leaving their application of choice. Users can launch automations in web applications from vendors like Avaya, Cisco, Genesys and Salesforce. This innovative strategy reduces barriers to RPA adoption and creates flexible options to weave attended and unattended automation into core applications.

- Customer success: Automation Anywhere has developed an impressive customer success strategy, the Pathfinder Program, to help customers start, develop and scale their automation programs. This program aligns with an organization's hyperautomation journey and demonstrates deep understanding of customers' technical and business challenges.

Cautions

- Cloud migration: Some of Automation Anywhere customers who experienced challenges with the migration from the company's legacy v11 platform to Automation 360 have stated they feel "on edge" about remaining with Automation Anywhere. However, Automation Anywhere is close to putting these migration challenges behind it. Gartner has seen a drop in client inquiries about Automation Anywhere migration challenges, and the vendor has indicated that less than 2% of its customers will remain on v11 by the end of 2023.

- Pricing: Automation Anywhere has eliminated its value-for-money, entry-level package known as the Partner Pack. This raises the entry price point for new Automation Anywhere customers, although in many cases they may find it on a par with competing RPA offerings. Automation Anywhere has indicated that it wants to begin moving away from product-centric packaging toward a packaged use-case pricing strategy.

- Quality of partner implementations: Automation Anywhere has an extensive global network of partners for RPA project implementation, but the quality of their work varies. Some SMB clients have reported low-quality implementation work from Automation Anywhere's partners for small and midsize implementations.

Cyclone Robotics

Cyclone Robotics is a Challenger in this Magic Quadrant. Its RPA products include RPA Studio, RPA Robot, RPA Controller, Digital Workforce Platform, Robot-as-a-Service, Intelligent Assistant and Process Intelligence. Cyclone Robotics has repositioned itself as a provider of an AI-amplified, enterprise-level RPA product portfolio integrated with GPT.

Cyclone Robotics' operations are mainly in Asia/Pacific. It has customers of all sizes across all industries.

Cyclone Robotics' RPA roadmap includes support for incremental UI connectors to line-of-business systems (such as those of ServiceNow and PeopleSoft) for global customers. It also includes RPA migration tools to convert scripts from other RPA platforms into Cyclone RPA scripts, and to embed GPT into RPA Studio.

Strengths

- Product execution: Cyclone Robotics offers a mature portfolio of capabilities for everything from basic RPA design to advanced use. Its platform provides strong automation design and development functions, such as development support for multiple personas and support for various operating systems (OSs), remote developer collaboration and multiple programming languages. Its solid orchestration setup will likely meet the performance needs of most enterprises.

- Offering (product) strategy: Cyclone Robotics has invested heavily in AI to deliver services like its Intelligent Assistant (formerly known as CIRI) and the Cyclone AI Skill Platform. It plans to integrate GPT into its products by the end of 2023, so that clients can more easily use RPA to address a wide range of development challenges.

- Market understanding: Cyclone Robotics has positioned itself as a leading vendor in China's RPA market. It has increased its market share significantly since 2022 by gaining good insight into the needs of clients in China and by building a strong partner ecosystem in China. Within the next two years, Cyclone Robotics intends to expand cautiously into the markets of Hong Kong, Macau, Thailand, Vietnam, the Philippines, Japan and Korea.

Cautions

- Overall viability: Cyclone Robotics has still not made an initial public offering and has yet to make a profit. As it continues to invest in product development, sales and marketing, and operations, the company may face financial pressure that could hinder its ability to grow.

- UI integration and compliance: Cyclone Robotics does not offer prebuilt UI connectors for global applications such as JD Edwards software, PeopleSoft and SAP ECC. Nor does it support industrywide regulatory compliance protocols for its bots, such those of the U.S. Food and Drug Administration (FDA), FedRAMP, the Federal Information Security Management Act of 2002 (FISMA), and the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks. However, Cyclone Robotics has recently obtained SOC 2 and Capability Maturity Model Integration (CMMI) 5 industry certifications.

- Geographical presence: Cyclone Robotics' primary focus is China's RPA market. It has only a small presence in the rest of Asia/Pacific, the U.S., Europe, and the Middle East and Africa. In light of the global economic downturn and associated pressures, Cyclone Robotics has updated its global go-to-market strategy since 2022, but its coverage remains limited. Its expansion plan has yet to yield successful results.

EdgeVerve Systems

EdgeVerve Systems is a Niche Player in this Magic Quadrant. Its RPA platform consists of multiple components, including AssistEdge RPA, AssistEdge Engage and AssistEdge Enterprise Personal Assistant. The platform uses process automation and process discovery (AssistEdge Discover). AssistEdge Automation Studio is the primary design and test environment. AssistEdge Control Tower is a web-based app for managing and governing the RPA platform.

EdgeVerve is a wholly owned subsidiary of Infosys. EdgeVerve has operations across the world. Most of its AssistEdge customers are large enterprises.

EdgeVerve's RPA product roadmap includes OpenAI integration with AssistEdge Automation Studio, a resilience wizard in AssistEdge Control Tower, integration with security information and event management (SIEM) tools, and generation of next best actions.

Strengths

- Operations: EdgeVerve's automation program is supported by its parent organization, Infosys. EdgeVerve delivers automation via transformation programs that involve various service lines, such as those of Infosys' BPM, automation, AI, and data and analytics divisions. EdgeVerve's integrated business model, which benefits from Infosys' ecosystem, is its key differentiator.

- Business model/pricing: EdgeVerve's licensing strategy is based on bot count or consumption, the latter measured both by time used and transaction volume. EdgeVerve's consumption-based pricing links the use of robots to scale of use and improves business impact, UX and user security.

- Market understanding: EdgeVerve has responded to the shift from RPA to enterprise automation by transforming AssistEdge RPA into a multifunction automation platform. EdgeVerve's AI-driven enterprise platform can meet the needs of buyers of varying levels of hyperautomation maturity.

Cautions

- Market presence: EdgeVerve has yet to establish itself firmly in the RPA market, even though it has customers in North America, Asia/Pacific and Europe and is expanding its footprint in those regions. It has a much smaller footprint and partner ecosystem than some other RPA vendors. Gartner receives very few inquiries about EdgeVerve's RPA products.

- Product features: EdgeVerve's RPA development environment is primarily Windows-based and does not support Linux or macOS. It does not offer automation development for mobile/app-based environments, and the AssistEdge Enterprise Personal Assistant cannot be deployed to many common ERP/CRM platforms and applications.

- Marketing strategy: Many customers who do not engage with Infosys do not shortlist EdgeVerve's RPA product, despite its relatively broad automation offering and end-to-end services. Compared with many RPA vendors, EdgeVerve has little visibility in terms of platform community, developer ecosystem and online channels.

Hyland

Hyland is a Niche Player in this Magic Quadrant. Its RPA product, Hyland RPA, was acquired from Another Monday. Hyland RPA includes a Windows Presentation Foundation (WPF) desktop-based design studio, a Windows services-based runtime called Hyland RPA Conductor, and a web-based orchestrator called Hyland RPA Manager.

Hyland has operations and customers worldwide. It supports enterprise customers, with a focus on the healthcare, education, financial services, insurance and government sectors.

Hyland's RPA product roadmap includes a framework for onboarding and implementing prebuilt automations for vertical solutions. Hyland also plans to optimize its platform for cloud hosting and integration with Hyland Experience, its new cloud-native LCAP.

Strengths

- Business model: Hyland has succeeded in cross-selling its RPA product to existing Hyland customers. Hyland RPA is an appealing option for enterprise customers who want a packaged solution to automate tasks in content-centric business processes. For new customers, Hyland offers a 60-day product trial and a free customized process discovery session with a product expert.

- Viability: Hyland is performing well in a volatile economic climate. Hyland is a global leader in the content services platform (CSP) market, and its RPA business grew by 36%, year over year, in 2022. It plans to grow further by cross-selling Hyland RPA to more of its existing 16,000 customers. Hyland's global presence and healthy growth are augmented by a diversified partner network of more than 475 organizations, which provides customers with local resources and expertise.

- Vertical/industry focus: Hyland has built a broad portfolio of more than 13,000 customized industry solutions across six major verticals: healthcare, higher education, government, insurance, financial services and cross-industry. It plans to run industry-specific RPA campaigns and emphasize industry-specific solutions in its RPA cross-selling efforts, including for the healthcare sector.

Cautions

- RPA focus: Hyland's sales and marketing strategy focuses on cross-selling Hyland RPA to existing Hyland customers. Hyland's strong narrative around its CSP, BPA and LCAP overshadows its RPA offering. Potential buyers who do not already use Hyland products may not be aware of Hyland RPA, especially if they are seeking stand-alone RPA solutions.

- Breadth of features: Hyland's RPA does not support many common features. These include support for an orchestrator (in this case, Hyland RPA Manager) in the cloud (as platform as a

service [PaaS]); the ability for remote developers to collaborate on the same automation script/code at the same time; and attended bot support for desktops other than Windows machines (that is, macOS and Linux desktops). Nor does Hyland RPA offer prepackaged adapters for large-scale data migration to SAP S/4HANA, Oracle and other big data systems. Furthermore, Hyland's RPA platform does not provide a direct connector to connect and automate applications running on Citrix servers, although it does connect to virtual machines (VMs) via a computer-vision-based technology called Vision Sensor.

- Market presence: Hyland has low visibility in the RPA market, compared with other RPA vendors. Gartner rarely receives inquiries about Hyland RPA from buyers who are not existing users of other Hyland solutions. Gartner's market share research indicates that Hyland has only a very small share of the RPA market.

IBM

IBM is a Niche Player in this Magic Quadrant. Its RPA product is IBM Robotic Process Automation, which, as part of a broader, integrated hyperautomation suite, offers RPA along with process mining, API orchestration, digital assistance, IDP and AI capabilities. In this way, IBM provides an automation platform as a part of its Cloud Pak for Automation, which helps end users discover, build and apply automation solutions.

IBM has geographically distributed operations. Its customers range from small to large enterprises.

IBM's RPA roadmap includes a no-code, web-based authoring tool to enable business users to assemble automation flows from a catalog of bot skills, integrate the newly developed Natural Recorder into RPA Studio, and expand IBM RPA's integration with IBM's process- and task-mining capabilities.

Strengths

- Global presence: IBM is a globally recognized company with offices and partners in every region. Its vast geographic reach provides customers with access to local resources for sales, support and implementation. IBM has demonstrated the ability to deliver its solutions on a global scale via its sales channels.

- Product execution: IBM's RPA product provides good screen-scraping capabilities, which serve as the product's foundation. Its task-mining capabilities are especially strong and together serve as a valuable add-on to its RPA platform. The RPA product's integration with IBM Watson provides AI-augmented capabilities for end users.

- Customer support: IBM's experienced global support team provides a positive customer experience. It has created a joint team of business development executives and technical leaders to guide customers through all stages of their automation journey.

Cautions

- RPA features: IBM supports Citrix and other VMs via its vision drivers, but, unlike many of its competitors, does not offer connectors that can automate applications running on Citrix or Remote Desktop Protocol (RDP)-based machines. IBM does not offer support for remote developers who need to work on the same script in parallel. Nor does it yet offer a web- or

mobile-based development studio for RPA script development. It also lacks common features such as workflow templates, support for continuous integration/continuous delivery (CI/CD) and DevOps.

- Go-to-market strategy: IBM pursues a low-cost pricing strategy for its RPA product to attract new customers, but is still not well-known in this market. Additionally, the average time to deploy a first application is not fast enough to compete with IBM's startup competitors. Moreover, IBM's RPA division has recently adopted a new marketing strategy to target large enterprises with its AI-augmented products, which is a departure from its traditional focus on selling RPA to SMBs. Clients may need to reexamine their product capability requirements and check whether IBM's offering still fits into their long-term roadmap for automation development.

- Vertical/industry strategy: IBM promotes RPA as just one of many features of its broad automation platform. Compared with its competitors, IBM provides few options for customers seeking industry-specific RPA solutions. IBM primarily depends on its business partners and IBM Consulting to develop industry-specific RPA assets for clients.

Laiye

Laiye is a Niche Player in this Magic Quadrant. Its RPA product, Laiye RPA, is well-suited for use with diverse OSs, as it can automate in Windows, Android and Linux environments.

Laiye's operations are mainly in China, Asia/Pacific and Europe. Its customers are mostly midsize and large enterprises.

Laiye's RPA product roadmap includes an automated process generator that uses large language models (LLMs), robot runtime environment templates, integration interfaces with commonly used software development life cycle (SDLC) platforms, integrated third-party intrusion detection systems, and an API connector builder based on LLMs.

Strengths

- Market understanding: Laiye has focused on unifying its platform, so that users can access all platform components as part of a single automation solution. It offers a browser-based, no-code automation development tool for citizen developers and business users. In 2022, it completed the acquisition of Intelligence Qubic, a China-based autoML and IDP company. These developments reflect an understanding of large enterprises' needs. Following its acquisition of Mindsay in 2022, Laiye has widened its footprint in Europe. Additionally, Laiye is building a global network of partners to broaden its operations.

- Innovation: Laiye's business model is to sell RPA and AI capabilities as an integrated platform with its network of partners. Through its utility-based or revenue-sharing model with vertical SaaS or other software companies, Laiye has created industry-specific automation capabilities. Notably, its product roadmap includes an RPA co-pilot capability that supports autogeneration of process snippets and customized Python code for use cases not covered by built-in commands, LLM-driven documentation of code, and LLM-powered classification and extraction for IDP.

- Offering strategy: Laiye's product team regularly interviews customers, and Laiye has an active community of more than 800,000 developers. A January 2023 release of its RPA product

provides compatibility with OSs such as KylinOS and Unity Operating System (UOS). This release enables Laiye to serve a broader range of customers.

Cautions

- UI integration: Laiye provides direct UI connectors for certain commonly used global applications like Microsoft 365, SAP and Oracle, but fewer UI connectors than other vendors. Although Laiye offers a range of connectors for applications commonly used in China, its lack of other connectors may impede customers elsewhere.

- RPA features: Laiye does not support industrywide regulatory compliance protocols for its bots, such those of the U.S. FDA, FedRAMP, FISMA, and the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks. However, it does support the General Data Protection Regulation (GDPR) and SOC 2. Also, it has only limited collaboration features for RPA developers, and it lacks embedded features such as instant messaging and other forms of collaboration that are available in competitors' RPA platforms. Furthermore, Laiye does not support any predictive analysis within the task-mining module of its RPA offering.

- Viability: Laiye faces tough competition both in China and internationally. Its approach of seamlessly integrating capabilities into a single automation platform is not unique, as competitors offer similar integration through partnerships.

Microsoft

Microsoft is a Leader in this Magic Quadrant. Its RPA product, Power Automate, is built on Azure and enables cloud-first and API-first automation, along with desktop-based automation via Power Automate for desktop (PAD). Power Automate provides RPA with API integration and orchestration, IDP, task and process mining, optical character recognition (OCR) and AI.

Microsoft's operations are geographically distributed. Its customer base includes large enterprises and SMBs.

Microsoft's RPA product roadmap includes reusable UI element collectors as components within the Power Automate designer studio. Microsoft will make additional cloud connectors available in the desktop flow designer and picture-in-picture execution for attended automation as a digital assistant in a user's desktop.

Strengths

- AI focus: Microsoft has embedded Microsoft 365 Copilot, its generative AI component, within Power Automate. Microsoft's investment in LLMs and partnerships with third-party products such as OpenAI's ChatGPT are intended to disrupt the market. Microsoft plans to use LLMs and other models to easily create automations for richer workloads.

- Microsoft ecosystem: Power Automate appears accessible to, and easy to adopt by, existing Microsoft customers, due to its proximity to other components in the Power Platform and Microsoft 365 ecosystem. Microsoft has a global customer base, with more than 500,000 organizations using Power Automate. The Power Platform has more than 500 implementation

partners and a community of over 2 million users. Gartner estimates that Microsoft's RPA business grew by 125% from 2021 to 2022, due to the wider availability of Power Automate.

- Pricing/sales strategy: Microsoft customers can often procure Power Automate at a discount with their Microsoft 365 Enterprise license, which can reduce the cost of RPA acquisition. Microsoft offers a limited free version of PAD, as well as a paid premium offering on a per-user, per-month basis. A new prepaid consumption pricing model will be generally available later in 2023, so customers will be able to choose their preferred billing approach (prepaid or usage-based).

Cautions

- Clarity of RPA offering: Most Gartner clients do not understand the difference between Power Automate and PAD. Power Automate users typically struggle to navigate between Microsoft's API-centric cloud flow, its RPA desktop flow from PAD, and its connectors and apps from Teams. Many customers also struggle to understand the platform licensing and what is included in their enterprise bundle.

- Integration with legacy back office: Some Microsoft customers have indicated difficulties integrating legacy back-office systems, such as JD Edwards software, and custom applications. Microsoft's RPA is Windows-based and does not support Linux or macOS.

- Cloud-first RPA orchestration: Power Automate supports RPA orchestration only in a cloud. Although it supports runtime agents on Windows desktops, hosted machine groups and some containerized environments that support the Windows GUI and specific VMs (such as Citrix and RDP VMs), customers will benefit most by taking a cloud-first approach.

NICE

NICE is a Leader in this Magic Quadrant. Its RPA product, NICE RPA, comprises NEVA Assist, which focuses on attended automation for global contact centers, NEVA Unattended and NEVA Discover for process discovery.

NICE's operations are geographically diversified. Its customers tend to be SMBs and large enterprises.

NICE's RPA product roadmap features an RPA migration tool, investment in NEVA-combining capabilities to discover opportunities for self-service, and the addition of "click to guide" compliance features to enable organizations to validate process compliance with NEVA Discover.

Strengths

- Market understanding: NICE envisions the RPA market moving away from shared services and back-office domains and toward an important technology stack within enterprises' customer-facing functions. NICE has responded to customers' demands for more specialized products to meet industry-specific challenges.

- Offering strategy: NICE is introducing AI-based agent augmentation by combining RPA with speech and behavior triggers through NEVA Agent Assist. NICE has also extended its partnership with Hyperscience for IDP-related use cases. Additionally, it has introduced NEVA In-App and NEVA Integrate for enterprise application UI and low-code API integration.

- Vertical/industry strategy: NICE targets global enterprises and contact centers by offering specialized attended bots to augment its workforce management functionality for a range of industries. Its automation community, open software development kit (SDK) and center of excellence enhance developer collaboration and are supplemented by a cloud-based automation studio and video-based courses and tutorials.

Cautions

- Unattended automation: NICE's RPA product is designed primarily for attended automation. Customers may find it is more complicated to use for unattended processes than are competitors' pure unattended development tools. Feedback from customers on Gartner's Peer Insights platform indicates that NICE's unattended automation methods can be difficult to find and configure, and that the product requires more technical skills for server installation and deployment.

- Product features: NICE does not provide built-in native OCR and autoML capabilities within its RPA platform. Nor does it support industrywide compliance with regulations such as those of the FDA, FedRAMP, Cloud Security Alliance (CSA), FISMA, and "good x practice" (GxP) for bots and platforms. However, as part of its roadmap for RPA, NICE does plan to support FedRAMP and CSA by 2025.

- Operations: There were only two new releases of NICE's RPA offering in 2022, which was far fewer than the number of releases from NICE's competitors. NICE also lags behind its competitors in terms of the number of employees dedicated to each function that supports an RPA offering.

Nintex

Nintex is a Niche Player in this Magic Quadrant. Its RPA product, Nintex RPA, is part of the Nintex Process Platform, which also includes workflow automation, digital forms, IDP, document generation, e-signature, process discovery, process mapping (Nintex Process Manager) and BPA capabilities. Nintex acquired Kryon in 2022 and leverages Kryon's Full-Cycle Automation Suite.

Nintex's operations are mainly in North America, EMEA, Australia and New Zealand. Its RPA customers are generally midsize and large enterprises in numerous sectors, with a concentration in banking and financial services.

Nintex's RPA product roadmap includes a simplified installation experience, tighter process discovery integration to enable automated bot development, and a new administration app for its cloud managed-service offering.

Strengths

- Workflow ecosystem: Nintex RPA includes a web-based interface with strong security controls and specific features to automate processes in SAP ERP. It supports bidirectional, end-to-end process orchestration between RPA bots and workflow capabilities via Nintex Gateway, an application that connects Nintex Automation Cloud to on-premises RPA and other third-party systems.

- Customer ecosystem: Nintex has strong name recognition, with over 10,000 automation customers and over 1,000 RPA customers in more than 90 countries. Existing Nintex customers may find value in its hundreds of prebuilt automation templates and connectors for RPA and workflow automation.

- Process discovery: Building on its acquisition of Kryon, Nintex differentiates itself with its integration of process discovery, automated bot development and attended automation. Additionally, Nintex plans to embed process discovery more tightly in its automation development life cycle.

Cautions

- Product features: Nintex RPA is focused on ease of use for less technical users, so it lacks some developer-centric features found in many competing products. It lacks a developer marketplace and support for CI/CD, and it has only limited collaboration features for developers. It also has only limited native IDP capabilities, although integrations with third-party IDP products are available. Nintex plans to address many of these shortcomings by the end of 2023 in its upcoming product roadmap.

- Visibility: Like other large software providers that have entered the RPA market through mergers and acquisitions, Nintex has yet to gain much visibility to, or interest among, most RPA customers. Client inquiries received by Gartner about Nintex mainly come from customers of Nintex's other automation solutions, although Nintex claims the majority of its RPA customers are net new clients.

- Vision: Nintex aims to differentiate itself by targeting the midsize enterprise market and less technical citizen developers with an integrated RPA, BPA, and process discovery platform, but this is a challenging market with higher customer turnover and better-known competitors. Also, Nintex currently offers limited generative AI capabilities via an OpenAI connector, though it plans to add generative AI to its short-term product roadmap, with capabilities becoming available during the next 12 months.

Pegasystems

Pegasystems is a Visionary in this Magic Quadrant. Its RPA product, Pega Robotic Process Automation, is part of the Pega Infinity platform. It complements the vendor's broader BPA capabilities and other features, such as its LCAP and support for CRM, multiexperience and business rules.

Pegasystems' operations are geographically distributed. Its customers tend to be large enterprises.

Pegasystems' RPA product roadmap includes AI-assisted development within its App Studio; an independent software vendor (ISV) launchpad for its developer community and service partners to build their own solutions on the Pega Cloud SaaS platform; and enhancements to X-ray Vision to improve self-healing capabilities.

Strengths

- Automation capabilities: Pegasystems' RPA product offers attended and unattended automation, real-time bot resource allocation, natural language processing (NLP)-based email rerouting, self-

healing capabilities and desktop mining. It integrates tightly with Pega Infinity, which supports customers looking beyond RPA to hyperautomation.

- Innovation: Pegasystems' innovations include patented automation technology that enables multithread attended automation at scale. This patented technology can also respond dynamically to changes in underlying applications and business logic.

- Pega ecosystem: Pegasystems has a large ecosystem of customers and partners, as well as a strong Pega Community to meet the automation requirements of large enterprises. Pegasystems has developed relationships with many large enterprises that have implemented hyperautomation with the complete Pega stack. This helps Pegasystems create reusable accelerators that can meet the automation needs of its customers.

Cautions

- Sales relationship and strategy: Pegasystems targets large enterprises with big budgets. Although Pegasystems has made several updates to its pricing model, it still may not be ideal for new RPA buyers seeking a lower entry price for RPA. Furthermore, several Gartner clients have expressed concerns about the implications of Pega's ongoing legal disputes with Appian. We advise prospective customers to monitor these proceedings closely.

- Complexity: Because the capabilities of Pegasystems' RPA product extend beyond tactical task automation, its implementations can be complex and often require deep integration and extensive software configuration effort. The product is tightly coupled with the core Pega Infinity platform and lacks the flexibility of "lighter" automation tools. Customers focused on smaller, targeted use cases may prefer a simpler RPA tool.

- Customer experience: Pegasystems' RPA product has both strong advocates and strong detractors, which results in disparate ratings. Its low satisfaction ratings on Gartner's Peer Insights platform are usually associated with implementation initiatives that require more effort than was anticipated at the RPA design stage. Several client inquiries received by Gartner concerning Pegasystems also mention difficulty training or finding resources. However, Pegasystems has released several updates in the past year to address these issues.

Salesforce

Salesforce is a Visionary in this Magic Quadrant. Its RPA product is MuleSoft RPA, which includes RPA Manager (a cloud-based control panel integrated with Anypoint Platform), RPA recorder (a business process recorder that can be triggered from RPA Manager), RPA Builder (a Windows-based desktop development environment) and RPA Bot (the runtime).

Salesforce's operations are geographically distributed. Its RPA customers tend to be midsize and large enterprises.

Salesforce's RPA product roadmap includes enhanced UI scraping; native Anypoint Exchange API discovery from RPA Builder; the ability to submit task-mining optimization ideas within the RPA platform; and native IDP for business users supporting prebuilt and custom training models.

Strengths

- Product portfolio: Salesforce is a Leader in Magic Quadrants for multiple technologies that complement RPA, including integration platform as a service (iPaaS), API management and LCAPs. In combination with its wider software portfolio, Salesforce's automation capabilities have the potential to support an enterprisewide hyperautomation strategy.

- Business model: Salesforce has a strong global partner network for implementations and provides free accelerators in its App Exchange. It enables customers to choose the timing with which to upgrade deployments and provides transparency, in terms of details of releases, updates and patches, via a portal.

- Viability: Salesforce has a diverse customer base that values its RPA capabilities. RPA is a clear part of Salesforce's automation and integration product roadmap, as shown by its acquisition of Servicetrace in 2021. Salesforce faces minimal viability risks, compared with smaller competitors that may exit the market or be acquired.

Cautions

- Visibility: Salesforce's RPA product has significantly less market visibility than the RPA offerings of its competitors. Most prospective buyers who ask Gartner about Salesforce's RPA already have a large investment in Salesforce's other solutions. Salesforce has communicated its offering vision and future plans to its core customers, but gained little attention outside this group.

- RPA features and support: Salesforce's RPA has some gaps in its feature set, such as IDP, autoML and the option to "bring your own script." It runs only on Windows (not macOS or Linux). Additionally, Salesforce's RPA, which is offered on MuleSoft's managed cloud service, does not currently support an on-premises orchestrator. Salesforce offers elevated support at additional cost for its RPA customers. It plans to invest further in 2023 to enable RPA support throughout its customer service organization.

- Sales execution/pricing: Salesforce does not offer a free trial to test its solution, although proof of concepts are an option. Prices for Salesforce's entry-point offering can be higher than those of some of its competitors' entry-point offerings. Although Salesforce's entry-point solution is consumption-based, with metric ratios associated with its wide range of automation capabilities, its price may still deter some organizations.

Samsung SDS

Samsung SDS is a Niche Player in this Magic Quadrant. Its rebranded RPA product is the Brity Automation Platform, which includes design studios for technical developers, citizen developers and orchestrators, for both on-premises and cloud deployments. It integrates with Samsung SDS's internal AI Contact Center and visual capabilities.

Samsung SDS's operations are mainly in South Korea. Its customer base is concentrated in South Korea and Asia/Pacific, but it also has some clients in Europe and North America. It competes in all market segments.

Samsung SDS's RPA roadmap includes a generative-AI-driven automation code generator, additional event triggers for its bots, and scheduling settings to support personalized automation.

Strengths

- RPA scope: Samsung SDS has a comprehensive product portfolio, including RPA, AI/ML and IDP offerings. It offers packaged solutions and professional services together as bundled products. It provides content in multiple languages. Additionally, it has improved its products' usability in 2023, including that of its step recorder for task mining.

- Viability: Samsung SDS's RPA business achieved year-over-year revenue growth of 52% in 2022 (as estimated by Gartner). This growth significantly exceeded the RPA market average and positioned Samsung SDS as the ninth-largest vendor in terms of market share (by RPA revenue). We consider Samsung SDS a financially stable vendor for RPA customers.

- Partner ecosystem: Samsung SDS's RPA operations partner with more than 60 service providers, including professional services, support and product engineering providers that offer a broad range of services. Samsung SDS works with its leading consulting partners to offer a paid service that diagnoses and recommends AI-based automation across business functions for its RPA customers.

Cautions

- Visibility: Samsung SDS's limited geographic presence may deter organizations outside Asia/Pacific. Although Samsung SDS is expanding its marketing outreach program beyond Asia/Pacific, it lacks the visibility of many other RPA vendors. Gartner clients do not typically shortlist Samsung SDS when evaluating RPA products, and Gartner receives relatively few inquiries about its RPA product.

- UI integration: Samsung SDS does not offer prebuilt integrations or UI connectors for enterprise systems such as those of Oracle, Salesforce and ServiceNow, or for IBM mainframes. Samsung SDS offers a richer set of UI connectors for many local applications used in South Korea and Asia/Pacific, but customers outside Asia/Pacific receive less in this regard.

- SDLC, security and governance: Samsung SDS's RPA product offers limited support for collaboration between developers and other user personas. It does not support test data generation, monitoring/metering of licensing usage patterns, agile planning tools or integration with third-party agile development tools. Nor does it support key third-party security vaults, such as CyberArk's, or industrywide regulatory compliance protocols such as those of the FDA, FedRAMP, FISMA, and the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks.

SAP

SAP is a Visionary in this Magic Quadrant. Its RPA product, SAP Build Process Automation, is an AI-powered, unified solution for RPA that also offers workflow and business rules management. It is tightly integrated into the SAP Business Technology Platform (BTP) stack and provides an intuitive UX for citizen developers, along with support for rapid development and enterprise-grade security.

SAP's operations are geographically distributed. Its customers tend to be midsize to large enterprises.

SAP's RPA product roadmap features automated business event triggering, AI-assisted development with chat-based recommendations and LLMs, a refreshed UX, and tighter integration with SAP Signavio, SAP Integration Suite (including via open connectors), and other SAP and third-party applications.

Strengths

- SAP ecosystem: SAP has a large-scale ERP ecosystem and a global customer base. Customers can benefit from its growing number of crowdsourced components, industry-specific prebuilt assets and connectors, which enable RPA capabilities for both SAP and non-SAP applications. SAP Consulting is incentivized to support process automation customers.

- Product strategy: SAP has improved its product by enabling integration with SAP Signavio (a process-mining tool) and embedding intelligence for authoring, execution and unstructured data handling. It has also improved its process design with branches, parallel approvals and subworkflows in Process Builder. It offers over 1,500 automation artifacts in 300 RPA packages and 80 larger process packages across multiple business functions. SAP has a strong vision for end-to-end automation that includes RPA, process mining, BPA and cloud ERP capabilities.

- Sales execution/pricing: SAP has made changes to its pricing model. SAP Build Process Automation is included at no extra cost in S/4HANA GROW with SAP and RISE with SAP bundles, and is available to all SAP BTP customers. SAP does not charge extra for AI capabilities. It allows customers to choose from flexible licensing options, such as consumption-based unattended and attended RPA (connection-based); advanced user licenses for process creators; and participant-only licenses for standard workflow users. These models can enable large-scale deployments while supporting diverse user personas.

Cautions

- SAP-centric focus: Although SAP Build Process Automation can automate both SAP and non-SAP processes, Gartner customers indicate that they perceive it as SAP-centric. Potential buyers of SAP's RPA need to check the quality of integration with specific non-SAP applications.

- Market awareness: Marketing for SAP Build Process Automation typically targets customers looking for comprehensive ERP business solutions including automation technology. SAP's competitors in the RPA market are more visible. Given SAP's relatively limited visibility in this market, customers may struggle to determine the market's perception of its RPA product, support and services.

- RPA features: SAP Build Process Automation does not provide on-premises RPA orchestration. It also currently lacks other features commonly offered by its competitors, such as support for macOS and Linux deployments (SAP will add this later in 2023), a tool for calculating ROI, and a wide range of connectors to orchestration engines.

SS&C Blue Prism

SS&C Blue Prism is a Leader in this Magic Quadrant. Its RPA product, the Intelligent Automation Platform, integrates with SS&C Blue Prism Chorus' BPA suite, IDP capabilities, and process intelligence, among others.

SS&C Blue Prism has geographically distributed operations. Its customers include large enterprises and SMBs.

SS&C Blue Prism's RPA product roadmap includes a cloud-native SaaS platform with flexible pricing; integration with the SS&C Everywhere data fabric to connect data with many of SS&C's 150-plus products; and significant enhancements to its application modeler capabilities (including enhanced computer vision to improve screen capture).

Strengths

- Product portfolio: SS&C Blue Prism offers a wide range of RPA capabilities, including numerous connectors to enterprise applications and centrally managed automation for highly regulated markets. SS&C Blue Prism has integrated its core RPA product with other products within its intelligent automation portfolio to create a unified platform that could be compelling for enterprise customers. It has also released SS&C Blue Prism Desktop to support attended desktop automation.

- Business model: SS&C Blue Prism's business model revolves around the strength of its core RPA product, that product's integration with capabilities across its portfolio (including Chorus BPA), and strategic cloud alliances for multiple clouds, including those of Microsoft (Azure) and Amazon Web Services. SS&C Blue Prism has more than 168,000 active RPA users and a community of over 50,000 users across 5,000 companies.

- Bundling of solutions: To simplify the purchasing process, SS&C Blue Prism offers a single, unified offering that includes an orchestrator, development studio, bot licenses, product support, and limited IDP and process-mining capabilities.

Cautions

- Pricing: During Gartner inquiry sessions and proposal reviews, some customers have indicated that prices for SS&C Blue Prism's RPA product have effectively increased at the time of contract renewal, mostly due to the inclusion of production support costs. These costs were previously optional but are now mandated by SS&C Blue Prism. Despite this policy change, however, the list price of SS&C Blue Prism's cloud offering has seen high single-digit percentage price decreases for a standard three-year term.

- Compliance features: SS&C Blue Prism supports fewer industry regulatory compliance standards than many of its competitors. It currently does not support popular compliance standards such as FedRAMP, FISMA, Payment Card Industry (PCI) and GxP.

- Embedded automation: SS&C Blue Prism's embedded automation features are limited to webpages that can be rendered outside the RPA platform. It does not support prebuilt embedded automation for popular enterprise applications such as those of Microsoft, Oracle, Salesforce, SAP, ServiceNow and Workday. Its RPA platform does not yet support runtimes for macOS, Linux or other OSs.

UiPath

UiPath is a Leader in this Magic Quadrant. Its product, the UiPath Business Automation Platform, provides an end-to-end set of hyperautomation capabilities, including RPA, AI, NLP, API automation, process orchestration, low-code app development, process and task mining, IDP, and application testing. Its core RPA product is a cloud-native offering with tailored design studios for professional and citizen developers, in which they can create and consume automations in a secure, collaborative and governed manner.

UiPath has global operations. It serves every buyer segment.

Recent AI enhancements include point-and-click experiences for citizen developers to train ML models, a large-screen model for its AI computer vision technology, and UiPath Communications Mining to enable robots to read and perform tasks based on unstructured data or messages. The company's short-term product roadmap includes a native generative AI co-pilot for creating apps and automations with natural language prompts.

Strengths

- Product strategy: UiPath has a strong brand and greatly influences the market with its narrative about AI-powered automation. It continues to evolve rapidly from a pure RPA tool vendor into an enterprise automation platform provider that combines RPA, AI, NLP, API automation, IDP, process and task mining, process orchestration, low-code app development, and application testing. It also offers prebuilt automation solutions for finance, insurance, healthcare, manufacturing and other industries.

- Viability: UiPath has a strong presence and a strong ability to execute in the RPA market. It is by far the largest vendor in terms of RPA-specific revenue. With a large partner ecosystem and global customer demand, UiPath has a compelling vision for building a stable platform that can meet customers' automation needs.

- Customer ecosystem: UiPath has a diverse customer base of more than 10,000 enterprises across all industries. Customers who need to automate industry-specific processes can use UiPath's sizable RPA-specific partner ecosystem. This ecosystem provides industry experience, benchmarks and precreated assets to augment industry capabilities available from the UiPath Marketplace.

Cautions

- Product strategy: UiPath could improve some of its complementary technologies, such as its products for IDP, process mining and test automation, and its LCAP. Although these technologies work well enough for customers who want to standardize on UiPath's platform for a unified automation strategy, some customers have indicated that their mature hyperautomation practices and complex workflows require capabilities beyond what UiPath offers.

- Pricing: Some UiPath customers with legacy on-premises pricing arrangements have reported significant cost increases, although this greatly depends on the quantities deployed. To simplify its diversifying portfolio, UiPath has introduced deployment-agnostic licensing, known as Flex, as well as usage-based pricing for serverless cloud RPA, IDP, AI and task mining.

- Partner services: Some customers have reported concerns about the delivery quality provided by some of UiPath's recommended partners. UiPath has one of the largest RPA partner ecosystems, so quality may vary between its more than 5,000 systems integrator partners. UiPath is revising its partner program to place more emphasis on the quality of its partners, rather than their quantity.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

- EdgeVerve Systems

- Hyland

Dropped

- WorkFusion: This vendor is not included in this Magic Quadrant because its RPA strategy and capabilities do not align with Gartner's inclusion criteria. Also, WorkFusion no longer focuses primarily on selling RPA. However, it maintains its base of RPA customers.

Inclusion and Exclusion Criteria

To qualify for inclusion in this Magic Quadrant, vendors had to:

- Demonstrate a clear and active go-to-market and sales strategy, primarily for RPA software, as demonstrated by their website, reviews on Gartner's Peer Insights forum, social media communications, and direct or indirect marketing materials that explicitly mention RPA.

- Sell RPA software directly to paying customers without engaging professional services. Vendors had to provide at least first-line support for their RPA capabilities. They must not sell their RPA product solely to, and for the use of, its professional services and consultants.

- Offer a commercially supported enterprise offering — in other words, vendors must not offer their platforms as open-source software.

All vendors also had to demonstrate presence in multiple regions, with at least 30 paying RPA customers (unique logos) each in at least two of the following regions as of 31 January 2023:

- North America

- Latin America

- Europe, the Middle East and Africa

- Asia/Pacific, including Japan and China

They also had to have:

- A minimum consolidated market relevance index (MRI) score greater than 1.5 (see Note 1).

In addition, vendors had to satisfy one of the following three criteria:

- At least $55 million in revenue in the financial year 2022 (FY22) from sales of RPA software licenses, excluding revenue from professional services, consulting and any systems integrator support (see Note 2).

- Either year-over-year revenue growth of at least 20% in FY22 from sales of RPA software licenses, (excluding revenue from professional services, consulting and systems integrator support), or at least 500 paying RPA customers with a consolidated MRI score greater than 2.5.

- A minimum consolidated MRI score greater than 4.

Vendors also had to offer the following capabilities natively within their RPA platform or product as of 31 January 2023:

- Screen-scraping capabilities, with at least five UI connectors from the following list:

    o Selenium IDE

    o Microsoft Active Accessibility

    o Microsoft UI Automation

    o Java application connector

    o SAP WinGUI

    o Windows GUI

    o Mainframe emulator

- Enterprise IT capabilities, including disaster recovery environments, high-availability support, CI/CD, SDLC management and multipersona collaboration within the RPA software.

- Support for RPA script development with standard programming languages or vendor-specific low-code representations, including graphical development.

- Ability to record tasks and convert them into scripts that can be deployed.

- Support for both attended and unattended automation.

- Ability to orchestrate and administer users, scripts and the runtime, including configuration, monitoring and security (a central orchestrator or control panel/administrative component is essential).

- Ability to deploy bots in all of the following environments:

    o Desktops

    o Virtual machines

- Public and private clouds

We excluded vendors that:

- Did not offer integration via screen scraping.

- Offered only PaaS or back-end services without a desktop runtime component, an orchestration component and front-end development tool/integrated development environment to build the scripts/automation.

- Required a specific third-party component or product, or a white-labeled product, to support core RPA capabilities.

- Only sold their RPA product as licensed software along with development/professional services, where the product was used exclusively by the vendor's consultants/service providers.

- Did not offer a commercial enterprise RPA offering (that is, they offered a platform only as open-source software) or that would retire their platform by the end of 2023.

Evaluation Criteria

Ability to Execute

Gartner evaluates how well vendors' processes, systems, methods and procedures enable them to be competitive, efficient and effective.

Table 1: Ability to Execute Evaluation Criteria

Enlarge Table

-

Evaluation Criteria	Weighting
Product or Service	High
Overall Viability	High
Sales Execution/Pricing	High
Market Responsiveness/Record	Low

Evaluation Criteria	Weighting
Marketing Execution	High
Customer Experience	High
Operations	Medium

Source: Gartner (August 2023)

Completeness of Vision

Gartner also evaluates how well vendors demonstrate understanding of the RPA market's current and future direction — including in relation to innovations, customer needs and competition — and the degree to which their vision aligns with Gartner's. This includes vendors' ability to anticipate market forces and create new market opportunities.

Table 2: Completeness of Vision Evaluation Criteria

Enlarge Table

-

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	High
Sales Strategy	Medium
Offering (Product) Strategy	High

Evaluation Criteria	Weighting
Business Model	Medium
Vertical/Industry Strategy	Medium
Innovation	High
Geographic Strategy	Low

Source: Gartner (August 2023)

Quadrant Descriptions

Leaders

Leaders have an insightful understanding of the RPA market, a reliable track record, the power to influence the market's direction, and an ability to attract and retain customers.

In the RPA market, Leaders demonstrate understanding of enterprise customers' needs and of opportunities to expand functionality and add new products and services to their core RPA offerings. Simply put, a Leader must have a market-leading vision and the ability to deliver on that vision.

A Leader may not always be the best choice for every customer. A focused, smaller vendor can sometimes provide superior support and commitment. Other vendors may provide a specialized capability that is essential for some organizations, such as enhanced security or specific features or functions (required, for example, by call centers and individual desktop use cases). A vendor that focuses on RPA for a specific vertical market or a limited geographic area may not be a Leader in the overall market, but it may be a competitive option within its chosen market or area.

Challengers

Challengers excel at attracting a large customer base, but are often limited to one part of the market.

In the RPA market, a Challenger may have a strong following for attended RPA, but lack traction, commitment or sophistication in the unattended RPA market. A Challenger must demonstrate sustained excellence in execution and a significant following — a combination that few vendors have achieved in this dynamic, nascent market.

A Challenger may become a Leader if it adopts an aggressive, innovative strategy to expand its focus to encompass the entire market. It would also need to demonstrate exceptional insight into the market's direction and continue to execute excellently.

A Challenger may alternatively become a Visionary by sacrificing growth and instead focusing on developing innovative, differentiating features and capabilities.

Visionaries

Visionaries are a market's innovators. They propel a market forward by responding to emerging customer demands and offering customers new opportunities to excel.

Visionaries must also show insightful understanding of market trends and innovative strategies for marketing and sales, as well as for product and business management. Typically, these vendors appeal to leading-edge customers, even if they have minimal mainstream presence or name recognition. A Visionary's ability to deliver sustained, dependable execution in the mainstream enterprise market has yet to be tested sufficiently.

In the RPA market, Visionaries may invest in leading-edge hyperautomation offerings, including RPA, that are not yet readily adopted by mainstream enterprise customers. Visionaries excel in understanding the demands of enterprises that are looking for fully inclusive automation support, as they often provide related tools like AI, chatbots and process management.

A Visionary could eventually grow to become a Leader. Alternatively, a Visionary may become a Niche Player if it decides to limit its target market by focusing on its core competencies, technologies or existing customers. Equally, a Visionary could become a Challenger by developing its specialties in order to advance in terms of execution.

Niche Players

Niche Players typically specialize in a limited vertical or functional area, or have a strong product that is limited to fewer parts of the market or only one part.

In the RPA market, Niche Players also include vendors that focus on other software markets, but that are moving into the RPA market.

In the RPA market, Niche Players:

- Focus primarily on related tools, rather than RPA capabilities — for example, process discovery or ML tools.

- Have yet to demonstrate excellent execution and success in terms of visibility, market share and buyer interests.

- Have limited geographic reach.

- Exhibit an unclear vision.

- Focus only on a subset of use cases.

Niche Players often represent the best choice for a specific category of customer or a particular use case. They typically offer specialized expertise, focused support practices, flexible terms and conditions, lower costs, and greater commitment to a particular market segment and its customers.

In this fast-evolving market, opportunities exist in all directions. Some Niche Players are poised to improve their execution and evolve into Challengers. Others may become Visionaries by developing innovative solutions that attract interest beyond their niche segments. Still others may strengthen and broaden their businesses to become Leaders.

Context

RPA automates repetitive tasks by emulating transactional steps currently taken by humans, mainly via orchestrated UI interactions.

RPA platforms translate a human process or task into RPA software language to create a script to follow (commonly known as a "robot" or "bot"). Additionally, a runtime is allocated to execute the script by a control dashboard/orchestrator.

Software engineering leaders can develop bots programmatically or by using low-code/no-code GUIs native to the RPA software platform.

Market Overview

The RPA software market reached $2.8 billion in 2022, up from $2.3 billion in 2021 (see Market Share Analysis: Robotic Process Automation, Worldwide, 2022). This market, once the fastest-growing software segment, was the eighth-fastest-growing software segment in 2022.

Although the RPA market's annual growth of 22% far exceeded the average worldwide software market's growth of 11%, the RPA market's expansion has slowed during the past few years — from 62% in 2019, to 39% in 2020 and 31% in 2021.

The RPA market included more than 60 vendors as of 31 January 2023, but is becoming more consolidated and competitive.

We discern the following key trends in this market.

RPA Is Evolving Into a General-Purpose Automation Platform

As a technology platform, RPA software has changed entirely in the past five years. It is evolving from a screen-scraping tool with minimal workflow capabilities into a general-purpose automation platform.

All RPA vendors now offer a spectrum of capabilities that extend far beyond the realm of orchestrated screen scraping. Many RPA products now offer task mining, process mining, BPA, IDP, conversational AI, low-code UI development, workflow orchestration and decision automation. Task mining enables automation of employees' desktop interactions. Process mining helps identify potential process candidates for RPA. BPA facilitates orchestration and workflow automation of complex end-to-end processes.

API-First and Cloud-First Automation Are Growing

Behind every automation lies some form of integration. While screen scraping remains an important method of integrating complex and legacy systems of record, API-first automation has become equally popular, due to the rise of SaaS and other web-based applications. At the same time, improvements to microservice orchestration, containerization and "deploy anywhere" capabilities are making cloud-first automation approaches quite popular in the RPA market.

Vendors like Appian, IBM, Microsoft, Salesforce, SAP and ServiceNow are setting a new norm for cloud-first automation platforms by offering cloud-only orchestration. Automation Anywhere, SS&C Blue Prism, Pegasystems and UiPath are positioning their cloud-first capabilities to complement their existing on-premises RPA products.

Customers Are Building a Platform Ecosystem for Hyperautomation

Application leaders are going beyond tactical automation to deliver greater efficiency, efficacy and business agility. RPA technologies play an essential role in hyperautomation — a discipline that helps combine several technologies in an orchestrated manner to deliver end-to-end, intelligent, event-driven automation.

No single vendor currently offers the best capabilities across every category of automation technology. Hence, most enterprises are building an ecosystem of hyperautomation capabilities that draws on the strengths of multiple vendors' products.

ChatGPT and Other LLMs Are Driving AI-Generated Automation

As is evident in every aspect of business and IT, ChatGPT and LLMs are profoundly impacting automation.

Almost every RPA vendor has either already experimented, or plans to experiment, with including GPT models in their products or enabling APIs to known GPT vendors such as OpenAI. They are also offering direct capabilities, such as automatic email generation, prompts within workflow design, more accurate IDP model training, process-mining analytics and AI-driven development of RPA scripts. Many RPA vendors will launch incremental capabilities in the next one or two years, making AI-generated automation an important capability.

Note 1: Market Relevance Index (MRI) Score

When evaluating RPA vendors for inclusion in this Magic Quadrant, Gartner calculated an overall market relevance index (MRI) score for each vendor on a scale of 1 (lowest) to 5 (highest), based on a combination of factors, such as:

- Gartner client inquiry presence

- Number of Peer Insights reviews on gartner.com

- Social media presence

- Number of publicly visible job postings

- Search trends on third-party search engines

Note 2: Annual Revenue and Customer Numbers

When evaluating vendors for inclusion in this Magic Quadrant, we examined their revenue and customer numbers in FY22 (or, failing that, the calendar year 2022) for RPA software licenses only (excluding professional services, maintenance, free trials and other non-RPA software licenses).

SaaS subscription revenue included contract value for a calendar year, but excluded any services included in an annual contract.

For multiyear contracts, we included only the contract value for the first 12 months.

All revenue was converted to U.S. dollars on a constant-currency basis to neutralize the effect that foreign exchange rates can have on revenue.

The default accounting standard used was generally accepted accounting principles (GAAP).

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.