DMG
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AUTOMATION

Abstract

2021
Robotic Process Automation Product and Market Report

DMG Consulting's fourth annual edition of the **Robotic Process Automation Product and Market Report** is focused on contact center and service-related uses of attended and unattended robotic process automation (RPA). It also reviews and analyzes related enterprise uses of these solutions.

Contact centers have undergone more positive change in the past 15 – 18 months than they did in the prior 5 – 10 years, and there's no going back. Virtualization and increased use of digital channels have enabled companies to more easily expand and grow their businesses. Robotic process automation is one of many intelligent automation solutions that is helping contact centers become more agile and responsive to customer and employee needs. These solutions enable companies to realize cost savings in front- and back-office departments while improving service quality and the customer experience (CX). At the same time, RPA is elevating the agent's role by taking over basic and repetitive tasks and creating new and upgraded job opportunities.

The benefits from automation initiatives are large for organizations that are willing and able to break down long-standing organizational and political boundaries. Business and digital transformation is as much about re-imagining all processes and procedures as it is about updating systems. As a first step, companies should reevaluate, restructure and simplify all customer journey process flows to reduce the number of departments that touch or handle each type of inquiry. To do this right, companies should establish a center of excellence (CoE) to enable the many operating departments that will benefit from automation technology to work together to identify their needs and select the right systems to help with this essential step in their business and digital transformation.

Robotic process automation solutions are getting smarter, and a wide variety of AI tools are being leveraged by these solutions to automate more complex tasks. Recent innovations in RPA technology include the addition of knowledge bases that perform cognitive searches to deliver the necessary information to agents or to customers via a self-service solution. Computer vision technology, complemented by machine learning, is being used to "read and learn" from procedure documents and knowledge bases; the data derived from these documents can be translated automatically into process guidance

and RPA flows. Leading vendors are already leveraging machine learning to self-discover and recommend future automation opportunities. And natural language processing/natural language understanding (NLP/NLU) technology is being utilized to identify customer sentiment and intent in order to present agents with real-time guidance for the benefit of customers and agents alike.

Beyond their value as stand-alone solutions, the benefits and contributions of RPA increase substantially when they are integrated with third-party applications. Integration with intelligent virtual assistants (IVAs) to provide comprehensive smart automation to customers via self-service applications is the most common. Work is underway to integrate RPA into interaction analytics (IA) solutions to enhance real-time guidance. Robotic process automation is already proving to be a productivity enhancer in workforce management (WFM) applications, where it can help reduce the number of manual tasks in administering these solutions and speed up the creation and distribution of schedules. Knowledge management (KM) solutions benefit

from RPA technology by automating the process of retrieving context-based knowledge articles and reducing the manual effort required to keep KM solutions current. These highly practical uses of RPA deliver quantifiable benefits for the CX, agents and the company's bottom line.

The *2021 - 2022 Robotic Process Automation Product and Market Report* provides an in-depth and timely analysis of the RPA market, competitive landscape, technology, products, functional capabilities, and the servicing and market trends that are driving adoption and innovation. This Report features 5 vendors who offer solutions that address service, contact center, back-office and other enterprise uses: Jacada, NICE, OnviSource, UiPath and Verint. It is intended to help companies identify and select the right RPA solution to meet their current and future needs by evaluating the vendors and solutions including their technology.

- **Robotic process automation helps deliver an outstanding CX cost effectively and "ups the game" for agents:** Intelligent automation solutions eliminate repetitive and basic tasks, increasing the speed and accuracy of handling transactions; this is a win-win for organizations that want to improve agent productivity and satisfaction and enhance the customer experience. This frees customer service representatives and agents to perform more challenging and rewarding responsibilities with commensurate job titles and pay grades.

- **Companies considering an automation initiative must re-imagine their current processes and procedures:** The first step in a digital transformation initiative is for companies to review and update their current workflows and processes to reduce the number of touchpoints and hand-offs. This step is the difference between success and failure in many automation implementations. Companies should establish a CoE where departments that benefit from automation can collaborate to identify their needs and select systems to help with their business and digital transformation.

- **Artificial intelligence-enabled technologies are making RPA solutions "smart":** Over the past few years, leading RPA applications have transformed from primarily handling rules-based non-cognitive tasks to identifying and automating opportunities that their human counterparts did not even consider. And, due to the processing power of the cloud, RPA vendors can continue to add more AI as the technologies evolve and new use cases present themselves.

- **When RPA is integrated with third-party contact center applications, the benefits of both increase:** Integration of RPA with solutions such as IA, WFM and KM can help reduce the manual effort involved in administering these solutions and significantly augment the functionality and contributions of both applications.
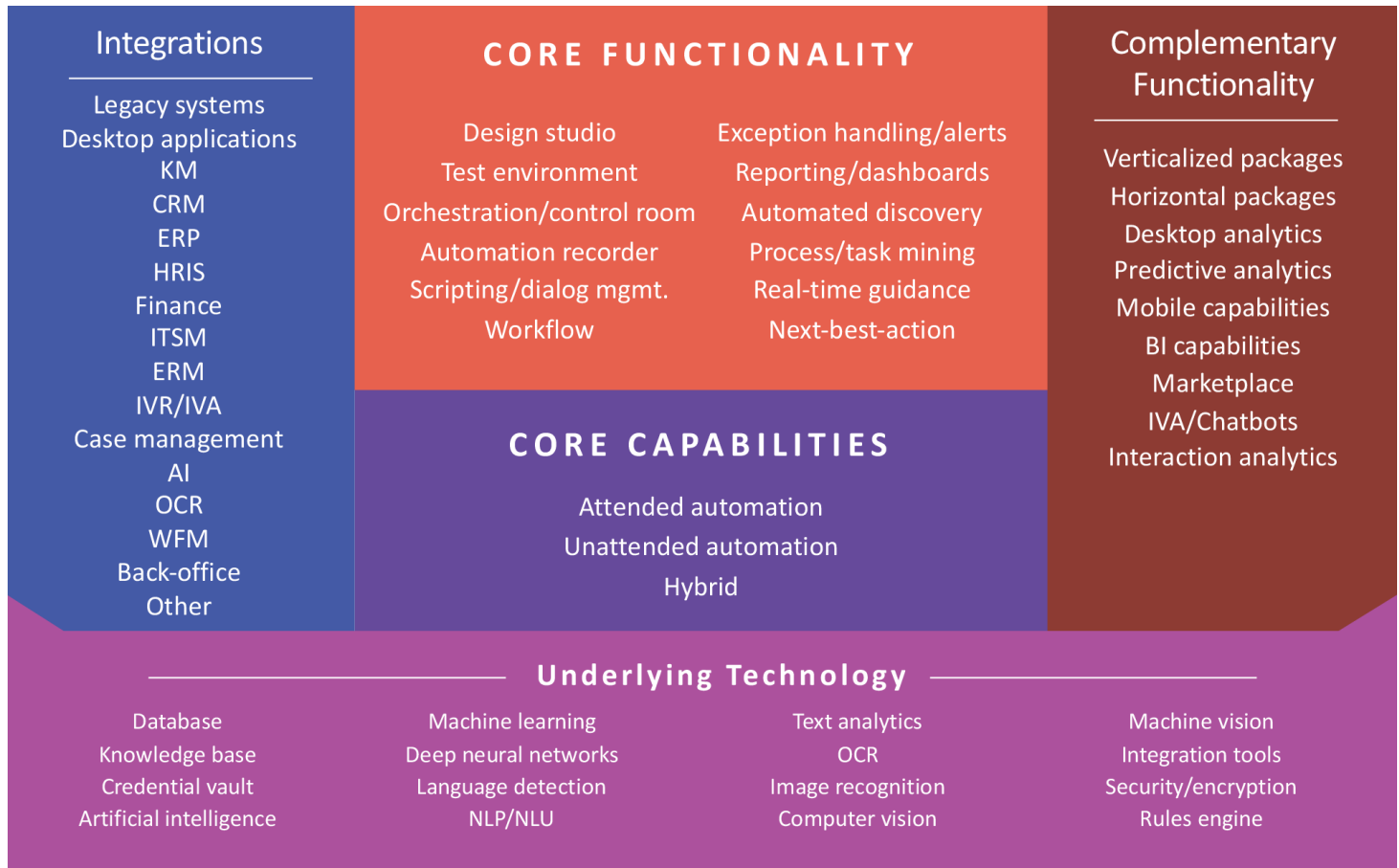
Key Reasons to Buy This Report

► Definition of RPA, including attended and unattended automation methods, how RPA differs from intelligent virtual agents (IVAs), functional building blocks that comprise RPA solutions and high-level technical components overview

► Market trends and challenges that are driving interest, investments and innovation in this sector

► Vendor innovation, feature and functionality enhancements recently released and near-term updates planned for the next 12 – 18 months

► Examination of the contributions of RPA to businesses during the worldwide COVID healthcare crisis and vendor opportunities precipitated by the pandemic

► Top uses and applications of RPA

► Review of the core functional capabilities provided by the featured RPA solutions, including design and development environment, knowledge base, business process mapping and process analytics

► DMG's predictions about the future of RPA

► Robotic process automation vendor market activity and 5-year projections

► Robotic process automation competitive landscape, including the technology sectors that are developing RPA solutions and a high-level overview of the RPA vendors and product offerings covered in the Report

► Comparative analysis of the security/compliance and business intelligence/ analytics capabilities of the featured RPA solutions

► Robotic process automation implementation and return-on-investment (ROI) analysis, including vendor methodology, best practices, professional services, training, and ROI benefits and time frames

► Robotic process automation vendor pricing structures for on-premise and cloud-based deployments

► Detailed company reports for the 5 RPA vendors covered in this Report, analyzing product functionality and near-term product roadmap deliverables

► RPA Vendor Directory

Robotic Process Automation

Integrations	CORE FUNCTIONALITY		Complementary Functionality
Legacy systems Desktop applications KM CRM ERP HRIS Finance ITSM ERM IVR/IVA Case management AI OCR WFM Back-office Other	Design studio Test environment Orchestration/control room Automation recorder Scripting/dialog mgmt. Workflow	Exception handling/alerts Reporting/dashboards Automated discovery Process/task mining Real-time guidance Next-best-action	Verticalized packages Horizontal packages Desktop analytics Predictive analytics Mobile capabilities BI capabilities Marketplace IVA/Chatbots Interaction analytics
	CORE CAPABILITIES Attended automation Unattended automation Hybrid		

Underlying Technology

Database Knowledge base Credential vault Artificial intelligence	Machine learning Deep neural networks Language detection NLP/NLU	Text analytics OCR Image recognition Computer vision	Machine vision Integration tools Security/encryption Rules engine

Source: DMG Consulting LLC, June 2021

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