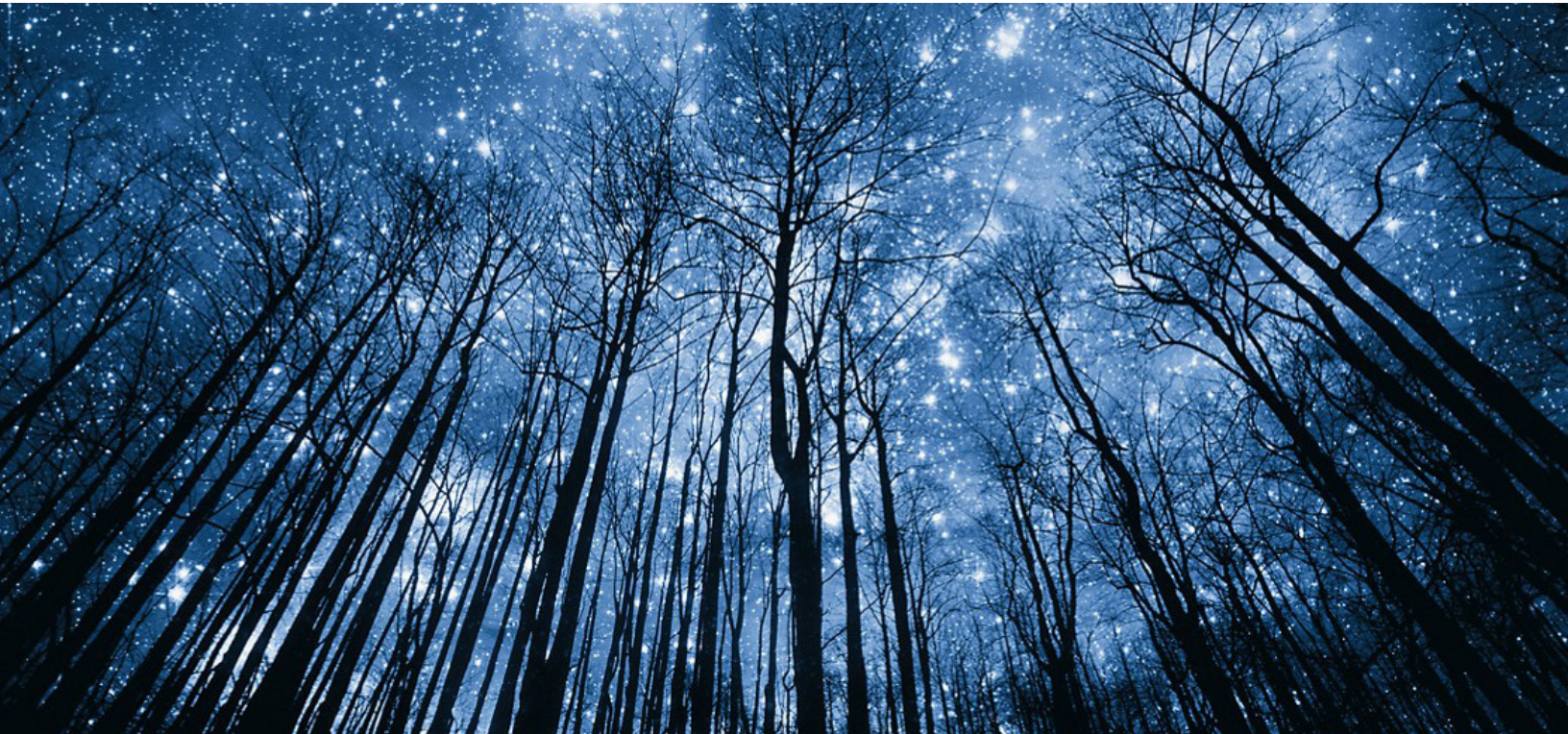


# IMPLEMENTATION OF ROBOTIC PROCESS AUTOMATION (RPA) IN SMB'S



**Tejesh V**

Specialist 2, Inside Product  
Dell Technologies

The Dell Technologies Proven Professional Certification program validates a wide range of skills and competencies across Dell's multiple technologies and products with both skill and outcome-based certifications.

Proven Professional exams cover concepts and principles which enable professionals working in or looking to begin a career in IT. With training and certifications aligned to the rapidly changing IT landscape, learners can take full advantage of the essential skills and knowledge required to drive better business performance and foster more productive teams.

Proven Professional certifications include skills and solutions such as:

- Data Protection
- Converged and Hyperconverged Infrastructure
- Cloud and Elastic Cloud
- Networking
- Security
- Servers
- Storage
- ...and so much more
- 

Courses are offered to meet different learning styles and schedules, including self-paced On Demand, remote-based Virtual Instructor-Led and in-person Classrooms.

Whether you are an experienced IT professional or just getting started, Dell Technologies Proven Professional certifications are designed to clearly signal proficiency to colleagues and employers.

## Table of Contents

<b>1. Introduction</b> .....	4
<b>2. Robotic process automation (RPA)</b> .....	5
<b>3. RPA tools</b> .....	7
<b>4. Top RPA tools</b> .....	8
<b>5. RPA for Startups and SMB Use Robotic Process Automation</b> .....	11
<b>6. The future of the RPA</b> .....	14
<b>7. Conclusion</b> .....	15
<b>8. References:</b> .....	16

## Introduction

Imagine spending each day at work performing repetitive, low-value tasks like data entry. This disturbs the interest of workers towards the job and their creative skills which can be used for high value-added activities. To help the workers and companies have a completed, accurate, and consistent outputs that require little or manual intervention the Robotic process automation (RPA) software was introduced in business process. This is a form of Business automation process where the software “Robot” or bot are deployed either on a physical or Virtual machines, to perform a set of instructions.

Robotic process automation (RPA) is a software-based technology that automates business processes using structured inputs and business logic. To automate repetitive, high-volume processes, these software bots in RPA combines automation, computer vision, and machine learning. The growth of RPA in the business markets are expected to exceed \$ 2.8 billion until 2023. But there is a common misconception by the small and medium business that this RPA technology is appropriate only for corporation and not suitable to their services. Many nations economic progress is greatly influenced by the contribution of small and medium-sized firms. While several serious issues like growth, profit, workforce productivity, as well as improving the quality of products and processes hinder the development of these businesses, technologies like robotic process automation can increase productivity.

In this article we will discuss about the several benefits for Small and Medium Business (SMB's) by implementing RPA effectively in their business process. We will talk about the top RPA tools, criteria to choose these tools and where to seek help for RPA implementation for the SMB's. The idea is to ensure the startups and SMBs understand the importance of implementing RPA in their business and have a competitive advantage in their industry.

## **Robotic process automation (RPA)**

Robotic process automation (RPA) is a technology that simulates how people interact with software to perform repetitious, high-volume operations. Using RPA technology, software programs or "bots" are developed that can log into applications, enter data, compute and finish tasks, and replicate data between applications or workflows as necessary.

The combination of AI and Machine learning helps RPA to read text or handwriting with optical character recognition (OCR), extract entities like names, invoice terms, or addresses using natural language processing (NLP), and extract more context from images such as automatically assessing accident damage in an insurance claim picture.

The fact that the RPA tools do not change current infrastructure or systems is one of the main advantages of robotic process automation. Application programming interfaces (APIs) are a common way for other process automation tools to communicate with systems. However, using APIs requires creating code, which raises queries with quality control, code maintenance, and adapting to changing underlying applications.

### **How does RPA work?**

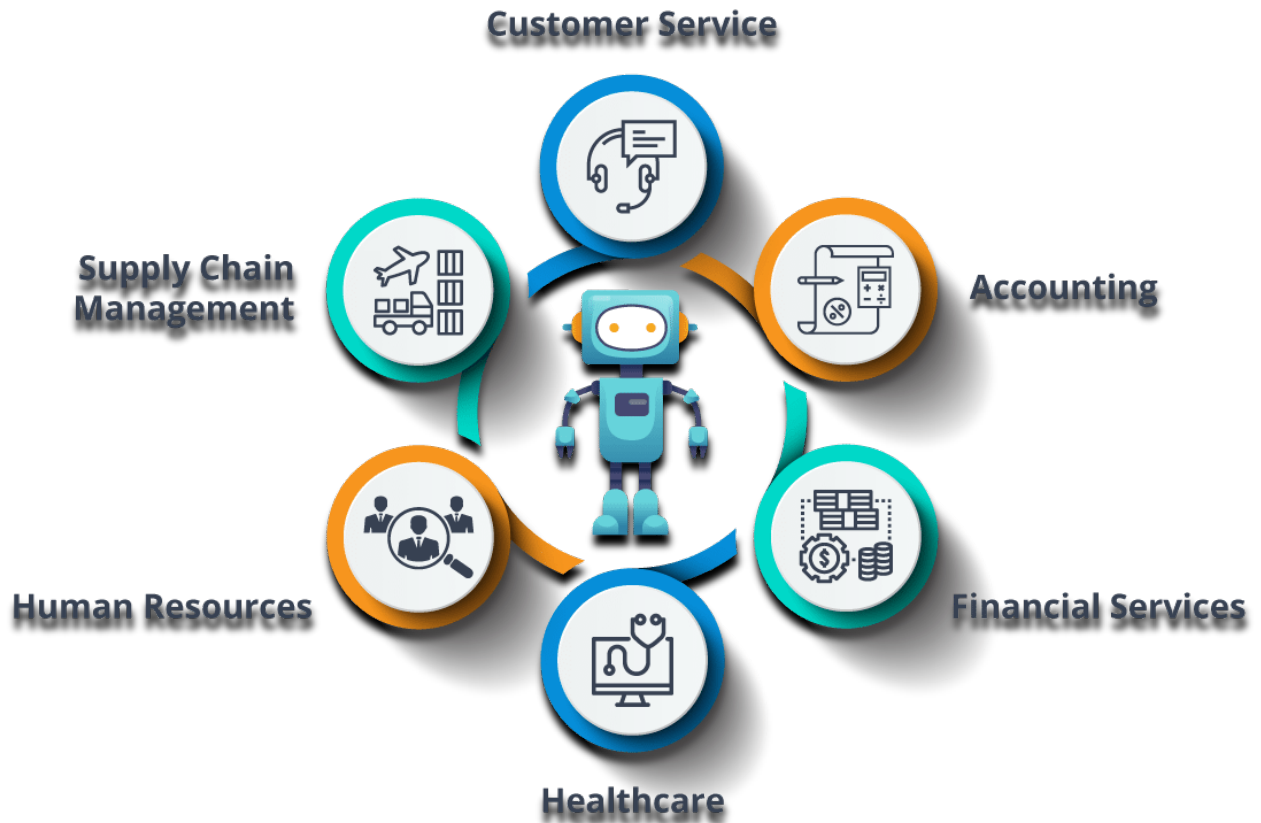
The most basic RPA bots can be made by simply recording a user's clicks and keystrokes while they use an application. When issues arise, a user only needs to keep an eye on how the bot is interacting with the app to figure out which stages require adjustment.

These simple recordings are frequently used as a model for creating more adaptable bots that can adjust to changes in layout, screen size, or process. The layout and icons on the screen are interpreted by more advanced RPA tools using machine vision, which further makes the necessary changes required.

Some RPA technologies can also use these preliminary recordings to build hybrid RPA bots, which begins by simply recording an existing workflow and then dynamically generate a workflow automation at the end. These hybrid bots benefit from both the scalability of native workflow automation and the flexibility of RPA creation.

In other RPA implementations, business process processes are automatically captured using task and process mining tools, which are then used as starting templates for RPA automations. To automatically

create a map of typical business processes, process mining, for instance, can examine the logs of CRM and ERP applications. Tools for task mining combine locally running apps with machine vision to record user interactions with several apps. These types of process mining integrations are now being developed by all the main RPA vendors.



## RPA tools

Built as a development of earlier bot generations, there are 3 main Categories in the market.

- **Programmable RPA bots:** The set of inputs defining how the RPA bot will interact with other systems must be understood and coded by programmers. This is the first generation of the RPA tools.
- **Self-learning solutions:** These tools observed hours of work by human employees, picked up on the procedure, and then took control of the platform and began performing the same operation.
- **Cognitive/intelligent automation bots:** Cognitive automation bots are self-learning bots that have been given advanced capabilities (such as machine learning, image recognition, and natural language processing) so they can learn how to interact with both structured and unstructured data.

Any RPA tool that the company selects must perform two basic functionalities:

1. A bot should be able to interact with various other systems through screen scraping / API integrations.
2. A bot should be able to make decisions and find its actions based on inputs gathered from other systems.

Addition to the above there are certain key factors to consider when choosing RPA tools: Ease of bot setup, Low-code capabilities, Attended vs. unattended, Machine learning capabilities, Exception handling and human review, Integration with enterprise applications. Orchestration and administration, Cloud bots, Process and task discovery and mining, Scalability.

## Top RPA tools

There are renowned RPA vendors that provide their own tools for business process automation. However, in this article, we'll talk about the top 5 RPA tools that can speed up the selection process.

### 1. UiPath

UiPath is a global software company based in New York City. With the help of UiPath tool, it is easy to manage automated business processes and the virtual workforce.

It is built on an on-premises and cloud deployment methodology, enabling it to deploy and manage everything in a single location. The primary benefit of UiPath is that it provides desktop contribution and a Citrix environment, both of which are beneficial for automating BPO. It is based on Kibana elastic search and Microsoft SharePoint workflow.

#### Key Features:

- Automated screen entry
- Data mining + extraction
- Large, growing library of API connectors
- Enterprise-level governance for APIs
- Ability to use APIs, UI, and AI in any combination

### 2. Automation Anywhere

Automation Anywhere is based in California, US. It caters to businesses looking to deploy a digital workforce composed of bots which can offer complete end-to-end business processes. Be it cloud, datacenter or desktop, automation anywhere can be deployed in any environment. It can protect all the architectures and control the processing. Microsoft is its base technology.

#### Key Features:

- Availability of IQ and meta bots
- Web-based centralized control room
- Dedicated mobile application
- Easily learned by anyone



### **3. Blue Prism**

Blue Prism group is a multinational software organization based in the UK. They pioneered RPA to reduce the high risk and low return processing work and data entry job manually.

Microsoft's.net framework is the foundation of the technology, which supports all platforms and applications. It facilitates design automation within the framework of IT governance. Both internal and external decryption and encryption keys are supported by the tool. Audit logs are made accessible to users. High levels of robustness are achieved by the customized.NET code.

#### **Key Features:**

- Integration with multiple automation tools
- Great UI and easy to code with
- Control room
- Work queue management

### **4. Microsoft Power Automate**

Microsoft Power Automate (formerly known as "Flow") is a cloud-based service that allows users to create workflows themselves. Recurring routine tasks and processes in different programs / services can thus be automated. This makes working easier and more efficient.

This is a powerful robotic process automation (RPA) tool that enables companies to automate time-consuming and complex operations. Numerous commercial operations, such as data entry, document processing, email management, and others, can be automated using it. Power Automate is easy to use and can be deployed quickly, making it an ideal solution for businesses of all sizes.

#### **Key Features:**

- Intuitive interface
- Hundreds of actions
- Easy recording of steps
- Attended or Unattended RPA
- An extensive list of templates

## 5. Appian

Appian Corporation is a cloud computing and enterprise software company headquartered in McLean, Virginia, part of the Dulles Technology Corridor. The company sells a platform as a service for building enterprise software applications. It is a web-based application that can be deployed on-premises or in the cloud.

This provides business customers a framework for low-code development so they may create applications without requiring to code. Additionally, it includes an extensive selection of pre-made connectors and templates that make it easy for users to begin going.

### Key Features:

- Multiple environments
- Low-code development
- No-code integration
- Bot marketplace
- AI recommendation engine

## **RPA for Startups and SMB Use Robotic Process Automation**

Startup and SMB companies believe that an RPA investment is not appropriate for their services. They think that RPA systems are typically more suitable for corporate enterprises, even though this is incorrect. RPA technology is simpler to implement in startups and SMB businesses because there is a minimal amount of effort required for processes like infrastructure or application redevelopment. As a result, these enterprises can afford the expense of the RPA investment in comparison to larger companies. A few issues that startups and SMB businesses face include boosting revenue growth, profit, and workforce productivity as well as raising the quality of products and procedures. RPA systems can now be used to solve all these issues.

SMBs can increase productivity to gain a competitive advantage by automating repetitive and time-consuming processes often connected with back-end office functions. Now that automated processes are being completed with greater accuracy and efficiency, the employee can concentrate on expanding the company's operations and enhancing customer service. A worker's motivation will rise if they are spared from performing repetitive tasks and given more time to consider creative solutions.

Startups and SMBs must monitor and forecast several scenarios, such as stock markets, growth rates, and other related factors. Constantly keeping an eye on them and speculating about them can be dangerous. The entire company could be impacted by a mistake. RPA systems are here to assist startups and SMBs in this situation! Real-time data tracking, analysis, and estimation are all capabilities of RPA systems. Additionally, they are always accessible in your desktop folder on your PC. These projections suggest that you should monitor the development, success, and flaws of your business and concentrate on improving them.

Seven basic use cases where Robotic Process Automation (RPA) can be used for SMBs and startups:

### **1. Customer service**

A company is receiving a continuous stream of complaints, but up until now, a human agent has been handling each one individually. They set up an RPA bot, which is programmed to classify the data obtained from the complaints and organize it accordingly. The bot can take those measures if complaints fit into categories for which there are already established protocols. All these tasks would normally be performed by human; however, RPA enables quicker resolution.

## **2. Invoice Processing**

A bot is configured to check on a specific folder as part of how it operates. The bot gets alerted when an invoice file is added to the folder, and it then goes on to read, document, and distribute all the essential information as necessary. This drastically cuts down on the amount of time it takes a consumer to get the information they require, increasing their satisfaction. Additionally, it eliminates the need for an individual to spend their entire day performing billing duties that can clearly be automated.

## **3. Boost Productivity**

It is a waste of both your money and the time of the specialist you are hiring if they are required to spend hours upon hours gathering or entering data. The main benefit of automation with RPA is that you can hire another individual to complete the task for a small portion of the cost. These bots work nonstop, never have to take a break, and are error-free and work 24/7. This has a huge impact on human labor.

## **4. Employee Onboarding**

Administrative activities that involve during onboarding are frequently tiresome and repetitious. When an employee's account is created, RPA can be used to automatically generate, send, and start an automated process.

RPA can also be used to reduce the quantity of paperwork you process by using an electronic capture system that receives and processes documents digitally, eliminating the need to produce paper copies of them.

## **5. Payroll**

Most HR staff members are aware of how laborious and time-consuming processing payroll can be. By standardizing your operations, bots can greatly assist your payroll team. Get a system that performs it for you rather than laboriously going over spreadsheets and manually writing checks. Many other types of payments, including salaries, overtime compensation, commissions, bonuses, raises, wage deductions, and costs, can be handled by an automated payroll system.

## **6. Storing Information**

RPA is crucial to businesses because it can sift through massive amounts of data continuously, flawlessly 24x7. This use case for the exchange of data is also useful for the internal IT department, as RPA can help in improving the monitoring of network devices.

For example:

Process automation, for instance, will feed and retain relevant data and flag any issues that IT should be made aware of for a company that employs a significant number of remote workers—a situation that is common in today's corporate world.

This greatly simplifies and improves the effectiveness of troubleshooting for dozens, sometimes even hundreds, of devices. When batch processing is required for sizable data sets, mobile device management (MDM) systems that use RPA can be of great assistance.

## **7. Analytics**

The use of high-quality data by decision-makers is crucial. Unfortunately, these company leaders occasionally must cope with inaccurate data due to human mistake. With RPA, they can be designed to recognize data that is helpful to people in addition to systematically sifting through massive amounts of data.

This is a task that bots are excellent at, and it ensures that the data you have is of high quality and specified by the rules that you have established, so you only receive the information you require.

## **The future of the RPA**

According to a survey by Global Industry Insights Inc., the RPA market will grow to \$5 billion by 2024. The predicted rise of RPA is primarily due to the rising adoption of RPA technology by organizations to improve their capabilities and performance and promote cost savings. Although RPA has gained popularity due to its ease of use, businesses have had trouble scaling deployments. According to Gartner, hyperautomation will eventually speed up RPA's expansion.

RPA-based hyperautomation projects combine RPA with additional automation technology, such as decision engines, low- and no-code development tools, and BPM tools. It will be simpler to include AI capabilities into these automations with the help of IPA and cognitive automation modules. Finding new automations will be supported by process and task mining. Enterprises may manage the overall process of simplifying operations in ways that assure trustworthy AI with the use of other AI governance technologies.

Companies will need to have a systematic framework for locating and developing automation possibilities, as well as managing the overall process across the company, as hyper automation takes hold. To coordinate and scale automation projects, several firms have created an automation Center of Excellence. -Forrester research has predicted that the collective impact of these various types of automation technologies could help enterprises save \$132 billion in labor value in the U.S. alone.

## **Conclusion**

RPA makes the substantial amount of IT workers that large firms use functionally equivalent for small and midsize businesses. With significantly reduced costs overall. Start-ups and small medium businesses (SMB's) should start discussing their business objectives, the issue at hand, and the associated expenses with the RPA service provider. To get the most out of RPA and other automation tools, they can ask the team to integrate them if necessary. RPA technology has begun to affect every aspect of our lives, including how we work. The RPA is powerful enough to boost business productivity but not enough to remove humans from their jobs. The biggest and most prosperous corporations in the world admit that RPA boosts productivity. It's time now! Startups and SMBs may soon be unable to compete with their competition if they do not use this technology.

## References:

<https://www.sphinx-solution.com/blog/how-can-smb-implement-rpa/>

<https://www.robomotion.io/blog/why-should-startups-and-smb-use-robotic-process-automation/>

<https://accelerationeconomy.com/automation/robotic-process-automation-rpa-for-the-smb-market-2/>

<https://www.impactmybiz.com/blog/blog-7-uses-robotic-process-automation-rpa/#:~:text=Robotic%20process%20automation%20helps%20companies,while%20delivering%20superior%20customer%20experience.>

<https://accelerationeconomy.com/automation/robotic-process-automation-rpa-for-the-smb-market-2/>

<https://www.aiim.org/what-is-robotic-process-automation>

<https://www.cio.com/article/227908/what-is-rpa-robotic-process-automation-explained.html>

<https://enterprisersproject.com/article/2019/5/rpa-robotic-process-automation-how-explain>

<https://www.processexcellencenetwork.com/rpa-artificial-intelligence/articles/a-guide-to-robotic-process-automation-rpa>

Dell Technologies believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

Disclaimer: The views, processes or methodologies published in this article are those of the authors. They do not necessarily reflect Dell Technologies' views, processes, or methodologies. Dell Technologies believes the information in this publication is accurate as of its publication date. The information is subject to change without notice. THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS IS." DELL TECHNOLOGIES MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Use, copying and distribution of any Dell Technologies software described in this publication requires an applicable software license. © 2023 Dell Inc. or its subsidiaries. All Rights Reserved. Dell and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.