Robotic Process Automation (RPA): An executive overview of basics

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This article provides an overview of the basics of RPA. I will be addressing other aspects of RPA such as challenges, what is involved in implementation, how to organize and how to scale in upcoming articles. I will post them to our web site www.SathAssociates.com.

Most enterprises today utilize multiple IT platforms -- Microsoft Office Suite, Oracle solutions, SAP, Adobe and so on. At times, these platforms are connected through APIs, but quite often are not. End users end up moving data from one platform to another to complete their workflow such as processing an invoice, closing the books for month end, onboarding employees. This task is mundane repetitive work – "copy this, move that". Various IT platforms will end up at the user level as there are dozens, hundreds in some large enterprises thousands of applications. Person hours doing such work is huge.

RPA can do this repetitive task error free, 24 x 7 x 365, take no breaks, scale up and down as needed and cost less. This frees up staff to do tasks that require judgement and creativity. Such automation (done right) can deliver benefits in a lot of scenarios leading to business transformation at the enterprise level. It can be applied in a wide range of industries and functions: BPO, Finance and Accounting, Healthcare, Human Resources, Insurance, Life Sciences, Manufacturing, Telecom, Supply Chain, High Tech.

What is RPA?

A simplified definition – RPA software records actions a human takes to complete a computer-based task and then repeats it any number of times rapidly. It is a piece of software that runs on a "client".

Think of RPA as your Digital Workforce. Show your robots (aka bots) what to do, then let them do the work. RPA bots have the same digital skillset as people and can interact with any system or application the same way people do—everything from copy-paste to correcting data to making calculations—so there is no need to change underlying business systems or applications, or any part of existing business processes in order to automate.
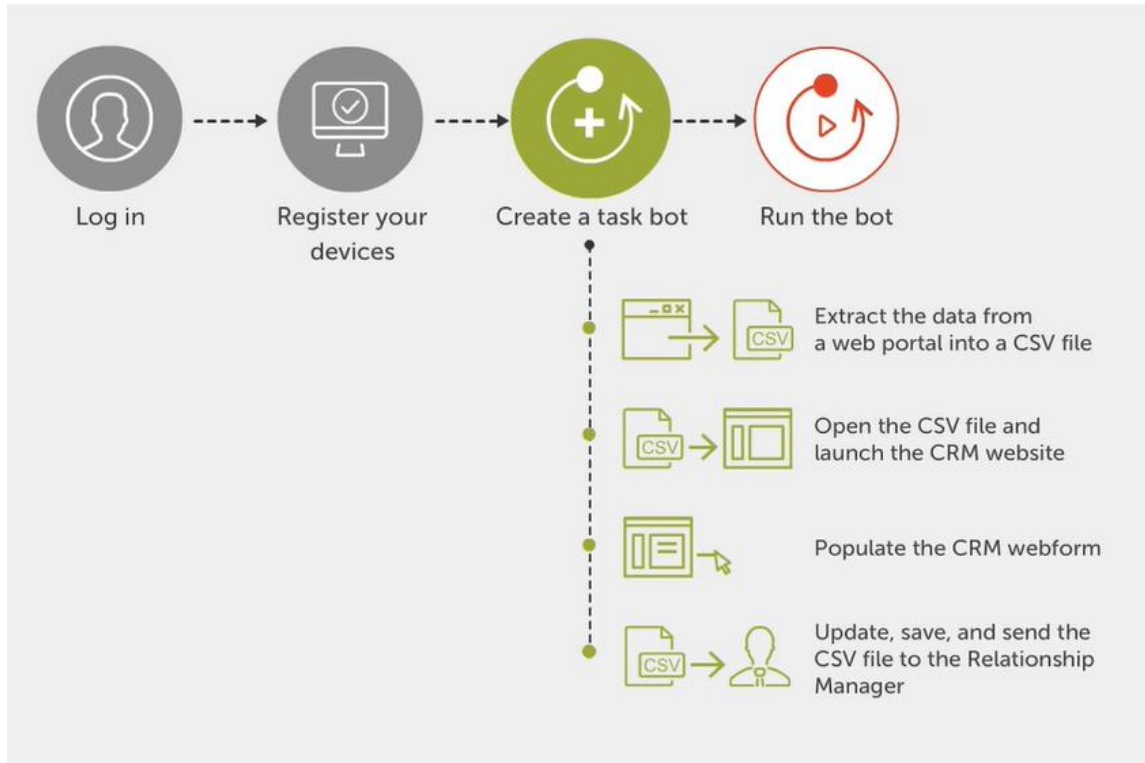
Figure 1. An RPA Example

As an example, one of the tasks in a CRM application is to extract data from a customer web portal and populate your CRM system. It is a repetitive task and until RPA came along, you had no choice but to employ humans. The above figure depicts how this can be done by employing bots instead. Now you have a choice. The bot does the same thing as a human; it sits in between the web portal and the CRM system. It is does not require you change either system.

In addition to extracting data, here is a sampling of other tasks that RPA can do.

- Log in to any application
- Connect to system APIs
- Move files and folders
- Read and write to databases
- Scrape data from the web
- Open emails and attachments
- Make calculations

RPA Benefits

Boost Productivity and improve staff morale

You will free up your staff from repetitive tasks and you can use them to do tasks that require judgement. Your staff will be better motivated and become more productive. Caveat: You need to handle the roll out properly and get you staff on board early on. More about this in an upcoming article on challenges you need to address.

Reduce cost

Even after accounting for the cost of developing, implementing, and managing RPA you have the potential to reduce your overall costs. This cost reduction gives companies options they may not have had without RPA. Depending on the needs of the company, savings can either flow to the bottom line or fund other projects or products. In the former case, cost reductions can increase the company's earnings per share (EPS) and thus increase the company's value. In the latter case, the reductions indirectly generate additional revenues and greater profits.

Decrease cycle time and improve customer satisfaction

Since RPA can help improve productivity it will shorten cycle times for executing business processes. In any business, time is money. You may be able to improve response times and hence improve customer satisfaction.

Gain staffing flexibility

Once set up bots can be scaled up or down rapidly. In addition, they work 24 x 7 x 365 with no breaks. This helps you manage staffing levels, especially if your staffing needs are impacted by seasonal needs such as Christmas or Black Friday or unexpected events like Covid-19. During the pandemic companies who had established RPA initiatives discovered that there were in a better situation to handle the disruption. While the staff was still being set up to work from home, bots could be quickly scaled up.

Alternative to labor arbitrage

If your company is applying Business Process Outsourcing, examine processes that have been outsourced. Historically a high percentage of work that has been offshored has all the characteristics that qualify for RPA. You can replace offshore labor arbitrage with automation. You can bring that work back "home". You may find that some of the processes outsourced will not lend themselves to automation, but much of the lower end ones that were "lift and shift" will.

Where do you find use cases?

RPA can be applied to automate business processes across the organization. Some examples:

Human Resources: Because of the amount of form fillings, data capturing, updating that goes on in HR, it offers many opportunities for automation

Payroll
Time and attendance management
Benefits Administration
Recruitment – back office function
Compliance reporting
Personnel administration

Supply Chain

Inventory Management
Contract management
Work order management
Compliance

Finance and Accounting

Procure to Pay (Accounts Payable)
Order to cash
Vendor Management
Collections
Sales Order

Explore these areas to identify early opportunities:

Outsourced processes

Legacy systems

IT systems through acquisitions

Questions and comments?

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About the Author

Beginning with pioneering work at a $2 Billion a year Fortune 500 technology company, 25 years ago, M. M. (Sath) Sathyanarayan has been advising clients to launch, manage and optimize outsourcing and offshoring. He is author of a book on best practices for success in outsourcing and dozens of articles and invited speaker at industry conferences. Robotic Process Automation (RPA) creates opportunities for deploying this technology to optimize outsourcing and in some cases eliminate outsourcing altogether. As this technology became a viable option, Sath has done deep dive into RPA – "went to school" to learn the technology, received certifications, ran a project involving RPA in an organization of 2500. Sath provides advisory services focused on RPA and outsourcing.