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Robotic Process Automation

A five-step approach to effective implementation

Enterprise Operations Transformation

Predictions by multiple industry analysts, consultants and strategy gurus have come to life in terms of the tremendous growth of automation. The rise of Robotic Process Automation (RPA) as a technological enabler has been exponential and has become a pre-requisite for improving business performance. The potential market size of RPA will touch over $6.5 trillion by 2024, as per a leading consultancy firm.

Every business today is assessing the benefits of implementing RPA in its processes. However, to deploy RPA successfully in an organization, it is extremely important to have a time-tested and robust methodology. The objective of the approach should be to achieve a digital-enabled touchless environment with a strategic vision of optimizing total cost to serve customers. A standard approach would be required to operationalize this vision. Creation and strict adherence to a consumption framework becomes a tactical requirement to be able to commit and derive the benefits committed.

In this paper, we put forward an effective RPA deployment approach derived from industry expertise, and knowledge and delivery experience of market-leading automation products and IP solutions deployments.

Towards Robotics

Once an organization is ready to explore and deploy RPA in its business processes, it is very important to move forward with a stage-wise execution approach. As per the requirements, it is vital to align the approach to either DevOps or Agile methodology. The methodology needs to cater to all aspects of discovery, analysis, design, implementation and support that are crucial to RPA deployment in any process. Let us look at a systematic approach for implementing RPA in a process (Figure 1):

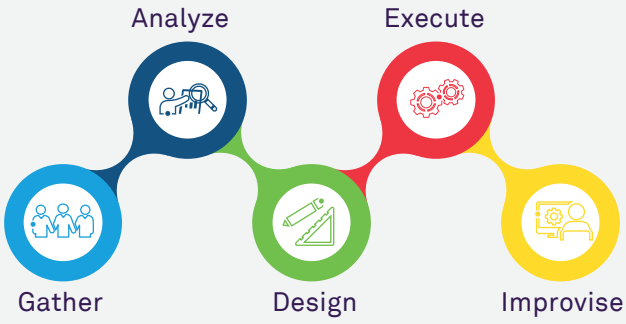

Figure 1: Approach to RPA Implementation

Gather

Capturing the processes is the most critical activity prior to beginning the automation journey for any organization. It is vital to have at least three groups of SMEs to collaborate at this stage. A) Domain Experts (because they understand the nitty-gritty of the industry), B) Process Experts (because they know the process in and out from the improvisation perspective), and C) Operational Experts (because they deliver these processes on the ground). The more details we can capture, the better the end process can be shaped and of course, be more beneficial when it comes to ROI implications.

The objectives at this stage are to capture and discover the customer journey (not just the process), create an inventory of all processes to enable a knowledge bank in one-go/collate existing knowledge, and capture undocumented processes (end-to-end) and its volumetric details.

Analyze

As the name suggests, the analyze stage involves a core team to microscopically detail out the information collated in the previous stage. At this stage, we recommend involving automation consultants in addition to the SME group introduced at the first stage. The core team would ideally weed out the steps that do not add any value to the business processes through Lean and Six Sigma initiatives. Next step would be to identify process steps that can be harmonized or need to be re-engineered to create the perfect process. A high-level project plan is created and tollgates for all transformation opportunities are identified.

The objectives at this stage are to analyze the processes for simplification and reengineering, selection of processes right for RPA deployment, high-level business case development of such processes, and identification of processes that require artificial intelligence-based support.

Design

In this phase, detailed due diligence is conducted for the identified processes. The core team from stage two will continue to support and complete the overall value stream mapping of the As-Is process flow to design the efficient To-Be workflow with minimum possible manual efforts and maximum automation opportunity. Important steps include creating a detailed Level 6 keystroke level map to identify the exact steps that can be automated, and perform gap analysis to identify any leakage in the process flows and benchmark against best-in-class industry standards.

All these steps help the team design the To-Be state of truly digital automated processes with a business case clearly articulating the ROI with timelines. The project manager documents and floats a detailed project plan with mutually agreed (between client-vendor) timelines in order to assign responsibilities as per the RACI matrix. Documentation and creation of artefacts, which can be used and re-used for later purposes, is necessary at this stage.

The objectives at this stage are to create the keystroke level To-Be maps, business case, and detailed project plan with clearly called-out responsibilities.

Execute

The team at this stage expands with inclusion of developers, technical architects, testers, apart from the process consultants, domain SMEs and operational SMEs. Multiple batches of this team structure are created in case there are multiple processes at the start of the execution phase. During the execution stage, the team can decide to utilize Agile, DevOps or a mix of both methodologies for deployment. Organizations today are exploring hybrid methodology in order to accelerate software delivery and increase collaboration amongst development, assurance, and operations teams. Core team then divides the implementation process in sprints and executes these sprints according to the agreed project plan. Typically, Sprint 1 will include requirement gathering, feasibility and creation of project plan with sprints delivery timelines, and Sprint 2 includes incremental development done and released for testing. Every sprint will include development until a logical point, and show and tell sessions for complex processes and incremental releases for testing. The ensuing sprint fixes the bugs identified during testing. The testing team utilizes a strong testing process (unit, box, regression, etc.) with a parallel run methodology before bots go live to enable 100% quality check and then hand over to operations team for utilization.

The objectives at this stage are to develop, build and deploy robots with rigorous testing and parallel go-live in short sprints to enable speedy but top-notch quality delivery.

Improvise

Several organizations tend to miss this stage by providing a simplistic maintenance/support team that caters to the bots deployed in the previous stage.

The right team at this stage include the support staff and process consultants for utilizing the actionable insights generated from the plethora of information/data collected from the earlier four stages. The information allows us to not only monitor and assess the actual utilization of bots in the automated processes but also enables us to identify the exception/fallout scenarios. It also helps create operational reports and dashboards for management review, and provide predictive insights for processes that can be made smarter eventually. A smarter organization would do well to invest in a strong support mechanism and structure in order to support the change management process and alignment with larger goals of automation strategy.

The objectives at this stage are to create a strong support team with clear levels/priorities/ escalation matrix, creation of operational dashboards and actionable insights for process enhancement.

Accelerated Future

RPA has been instrumental in revolutionizing existing processes to increase speed to market, eliminate waste, reduce errors and enhance customer experience. The future will see tremendous growth in RPA with the passage of machine learning and artificial intelligence accelerating. Even today, advancements in automation like cognitive automation help us in various ways - from investigating critical issues of dipping customer satisfaction ratings, reducing IT helpdesk tickets and issue resolutions, to HR initiatives of reducing attrition. We have already seen multiple applications of cognitive automation in our lives – from medicine to sports. It is only a matter of time for smarter cognitive automation to be an integral part of our daily lives in some shape (Alexa, Cortana, Google Assistant, etc.).

Traditional RPA automates rule-based, repetitive, high transactions-based processes, and thus, it is vital that the deployment approach an organization deploys is robust and efficient to ensure maximum benefits.

(Additional inputs from Abhinav Dutta, Enterprise Operations Transformation, Wipro)

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