



MANUAL

Processes

RPA

Robotic Process Automation

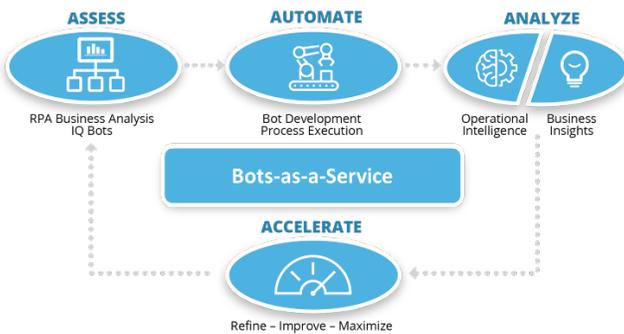
Robotic Process Automation (RPA)

David A. Callner

Vice President, Technology Solutions
of RIVA Solutions, Inc.

RIVA

According to a McKinsey report, enterprise organizations can automate approximately 44% of all back office functions. RIVA knows many of the processes in workflows are data-handling chores that do not require human judgement. They're repetitive and predictable, but necessary to the function of bigger tasks. A mode of operation that RIVA has success implementing is a Bots-as-a-Service, illustrated below.



BOTS-AS-A-SERVICE CONCEPT OF OPERATIONS

BOTS-AS-A-SERVICE: Robotic Process Automation (RPA) removes the “robot” from human tasks. Workers typically have routine, repetitive activities in their day-to-day work. Things that don't involve creative-thinking or problem solving but are simple “when A happens, do B” type of actions. These are vital tasks, but ones that can be done by computerized systems. RPA frees up workers to do what they do best such as applying reason, judgment, or interacting with customers.

Consistent, repeatable results allow for organizational scaling. RPA is the foundation of predictable, successful growth. With the advent of the industrial revolution, automation has been utilized by nearly all major billion-dollar multinational corporations, from Ford to WalMart. As businesses have moved into the Computer and Information Ages, the ones expanding fast have embraced robotic automation and software solutions. RIVA helps bring the efficiency, flexibility and dynamic growth of RPA to your organization, now with a unique new delivery model. the scope, style, and specific.

RIVA's deep bench of Robotic Processing Automation (RPA) prowess is utilized across multiple agencies to include National Science Foundation (NSF), and Department of Education (ED). Our experience will help us service customers by streamlining the internal operations. We start working with customers by gathering requirements, documenting workflows and processes, shadowing and recording processes for automation, assisting in the

development of deliverables. The need to automate highly manual processes, freeing employees from low level, time consuming tasks while increasing effectiveness and efficiency addressing highly manual and repetitive processes is long overdue.

Bots as a Service requires a bot-configurable piece of software; a platform required to build, run and maintain the bot; and skills, a team and capabilities required to design and build the bot. Here are some of the considerations that go into choosing Bot as a Service:

- Business and IT skills to design, build and run bots (automation)
- Time, cost and effort involved from plan to management of bots
- Complexity, compliance and governance of process to be automated
- Length of time bot will stay in place and execute task/process
- Evolution of RPA and Intelligent Automation technologies
- Avoiding vendor lock-in
- Maturity of organization and more

RIVA's RPA PLAYBOOK: RIVA's approach to RPA is effective for complex budget, labor, and workload constraints including high volume, repetitive work; processes that scale by adding more labor; and situations where significant budget limitations constrain major system modernizations. RIVA's solutions uses a lightweight approach to train 'bots' that automate repetitive tasks of medium complexity without changes to existing process or the IT infrastructure. RIVA's RPA Experts' records actions our customers take to complete a computer-based task, and then replicates those actions at the same security settings as the users. RIVA follows a six (6) step process to implement RPA, see below.



Qualifying (Step 1): Our RPA Experts work with our customers to identify opportunities for RPA by prioritize and qualify processes that can be implemented into a bot. We interview many stakeholders to identify the right workflows to turn into bots. A critical aspect of our approach is understanding which workflows

make sense for RPA and which one's do not.

Assessment (Step 2). Once a process has been qualified then RIVA RPA Experts will assess the process and ensure that all the elements that should be considered for a successful selection have been captured. Selection of the workflow will have to address business and technology considerations. Business considerations involve clearly defined business problem statements and requirements. Workflow considerations involve selection for the selected use case, compliance with existing technology and information security standards, and level of technical maturity required. RPA is a vast field of study and investment and so selection of a workflow, or set of workflows, should follow a methodical due diligence process. It is also imperative to make sure the data that is needed for building and training the RPA bots is available. RIVA understands that the RPA solution must be clearly identified before embarking on the implementation. We work to ensure that everybody understand the Return on Investment (ROI) for implementing the bot.

Proof of Concept (Step 3). Developing a Proof of Concept is a quick and easy way to validate that RPA is the right solution to improve the process. We take a minimally viable product (MVP) approach to developing the proof of concept as we only implement a subset of what is required to implement the solution. We document the workflow using a designer tool used to create diagrams of business processes. RIVA has experience using Blue Prism, UiPath Studio, Microsoft Workflow Foundation, and other advanced visual process modeling tools on our NSF and ED contracts. Once the MVP has been developed, we showcase the results to get feedback early and often to ensure we are maximizing the value that RPA can provide.

Design, Build, and Implement (Step 4). Now we have designed and have implemented a portion of the solution, excitement is building with staff because they can see the light in removing these remedial chores from their daily, weekly, monthly routines. RIVA RPA Experts will implement the bot using Blue Prism or UiPath Studio by dragging-and dropping different elements in a process to design different types of workflows, sequences, flowcharts and transactional business processes. We leverage built-in library of predefined actions such as clicking and typing that allow it to interact with a variety of desktop applications, web browsers and OCR engines along with collaborating with RIVA's Bots-as-a-Service repository to ensure maximizing reuse across the departments and agencies. RIVA's Blue Prism or UiPath Robot runs the processes designed in Studio in the same way that a user would. We can implement these bots either

by assisting the user, or completely autonomously without supervision for virtual or remote environments. RIVA will deploy the bots to the Bots-as-a-Service web-based platform that allows users to manage all the robots they've created, using the platform to enable remote control, monitoring, release management and centralized scheduling of the robots.

Benefits Realized and Roadmap (Step 5). RIVA maintains a Roadmap of all bots that have and will be created to give the ability to prioritize the development of the bots and transparency into how operations will change over time.

Benefits are realized below:

Flexibility and scalability: Bots can be scheduled for a time and scale rapidly as each bot is typically capable of performing multiple processes.

Decreased cycle times, improved throughput and accuracy: Bots are designed to perform tasks with a high degree of accuracy and high-throughput — making 24x7 operations possible. Results can provide 30% faster processing time, 4.4x higher throughput capacity, and 8% improved accuracy rate.

Detailed data capture: Tasks performed by bots can be monitored and recorded at every step, producing valuable data and audit trails that maintain regulatory compliance.

Service and delivery model transformation: Once a process has been automated, improvements in SLAs and capacity are possible with existing or even fewer resources.

Manage (Step 6). We manage the creation and management of bots an engaging process from start to finish. The key to bot optimization is always to keep in mind the number of Bot licenses available and the business timing constraints of when the tasks need to be performed. Using a list of all the Bots and their respective processes, RIVA maps out what a day looks like with all the Bots implemented and running. We do this to identify patterns and bot collisions then we optimize their usage while still maintaining the Service Level Agreements. We start by placing bots in columns that represent each day and shows what bots run under each license available. We then consolidate columns by placing bots into gaps of time during the day in which a license is being moved until we can no longer consolidate due to collisions. For example, say a bot runs for 3 hours each morning and another runs 4-5 hours at the end of each day, 2 licenses are not needed for these two bots, we can optimize by having these bots share one license because they do not need to operate at the exact same time. Next, we

look to draw lines between bots that run at the same time as each other so we can determine which processes cannot be consolidated. By mapping out the bot activities and corresponding licenses we are then able to discover the number of places in which Bot activities must overlap in order to meet business needs. This number represents the minimum number of licenses required to run all their bots daily to meet the financial process automation goals.

CASE STUDY

Problem to Solve: At National Science Foundation (NSF) in the Division of Human Resource Management (HRM) is responsible for ensuring NSF's staff members can accomplish the important work of the Foundation by providing excellent customer service and support services in the areas of benefits and work/life programs, learning and development, employee and labor relations, staffing and recruiting, and strategic human capital planning. HRM spends approximately 80% of their daily chores working on repetitive tasks that are very manual intensive which causes delays in employees receiving timely benefits, educational training, and recruiting new employees. Team RIVA sought this as an opportunity to streamline operations by leveraging RPA technologies to improve HRM's operations through automating repetitive tasks. Team RIVA did a trade study on UiPath, BluePrism and Automate Anywhere and determined that leveraging UiPath would provide the best value to government because of its rich feature set and integration out of the box with Oracle Financial products which is heavily used at HRM. UiPath is an advanced tool that enables users to design automation processes visually, through diagrams. UiPath executes the processes built in Studio, as a human would. Robots can work unattended (run without human supervision in any environment, be it virtual or not) or as assistants (a human trigger the process). UiPath Studio introduces a visual, declarative way of describing how to automate a process, and business users can use it in the same way they use a Visio diagram. When working with the presentation layer of other apps, users simply indicate on the screen which operation needs to perform. UiPath understands the UI at the logical control level and does not rely on the position of elements on the screen. This makes automation much more reliable and independent of screen size and resolution. UiPath scripts are very visual in nature one can simply look at them and tell at a glance what they are supposed to do. It is very easy to maintain them and accommodate small changes in the process.

Challenges and Impacts to Cost, Schedule, and Scope: Team RIVA's approach to RPA is effective for complex budget, labor, and workload constraints including high volume, repetitive work; processes that scale by adding more

labor; and situations where significant budget limitations constrain major system modernizations. Team RIVA's uses a lightweight approach to train 'bots' that automate repetitive tasks of medium complexity without changes to existing process or the IT infrastructure which alleviates potential challenges and impacts to schedule. The biggest challenge at NSF was the perception of what the bots we were creating were going to do to contractor and government jobs, we quickly learned that it is imperative to educate the community at large about what RPA is and what it does. We clarified with the group that RPA is not a replacement of a job but removes the remedial chores of NSF current operations so they can focus on the important high-level intellectual functions of their role. We educated NSF stakeholders on the capabilities of RPA (this was largely accomplished by demonstrating previously automated processes) and outline the process characteristics that lend themselves to automation. We work with NSF to identify the time-consuming, repetitive processes currently in place in each business area which may be good candidates for automation. We developed a Roadmap that is a list that is assessed by the RPA team for feasibility and subsequently recorded in a Roadmap, a document used to track and prioritize automation opportunities identified by the organization and Team RIVA.

Risk Mitigation Strategies: RPA is a new technology and within the HRM organization there were risks regarding the improper usage and deployment of RPA. RPA sometimes may rightly be the right solution, but situations have occurred whereby RPA is not the appropriate technology and was solely selected due to a misunderstanding of what RPA is and how it is implemented. To mitigate this risk Team RIVA worked with NSF to identify opportunities for RPA by working with NSF staff to help prioritize and qualify processes that can be implemented into a bot. Once a process was qualified with NSF then Team RIVA assessed the process and ensured that all the elements that should be considered for a successful selection were captured. Selection of the workflow needed to address business and technology considerations. Business considerations involved clearly defined business problem statements and requirements. Workflow considerations involved selection for the selected use case, compliance with existing technology and information security standards, and level of technical maturity required by NSF. RPA is a vast field of study and investment and selection of a workflow, or set of workflows, should follow a methodical due diligence process. It is also imperative to make sure the data that is needed for building and training the RPA bots is available. Team RIVA worked with NSF to ensure that all stakeholders understood the Return on Investment (ROI) for implementing the bot.

NEXT STEPS

Implementing RPA, the right way will take time and effort. You're changing the culture, and how people do business on a day to day basis. RIVA's RPA Experts are experienced in educating development teams and government to delineate the roles to help facilitate the RPA transformation.

Contact RIVA now to start your revolution with RPA.

For more information on this white paper contact **David Callner** directly at **dcallner@rivasolutionsinc.com**.

OUR PROFILE



Founded 2009

Mature SDB with infrastructure built on 10+ years in business



450+ Employees

RIVA consultants provide customer service at Federal client sites nationwide



18+ Locations

Nationwide workforce across 18 states



6 Prime Schedules/IDIQs

Rapid Response Pods and AUTODRRIVE technology in place



24 Federal Clients

Portfolio of Federal Civilian, Defense, Homeland & Intel clients



55 Prime Contracts

Prime past performance reduces risk to clients and partners



The Statistics

700% revenue growth in last 2 years
22% growth with existing clients



Glassdoor Rating

Reputation as a Great Place to Work ensures high retention



Turnover Rate

Investing in employee benefit packages results in low turnover

ABOUT RIVA SOLUTIONS

Headquartered in McLean, Virginia, right outside of our Nation's capital, RIVA Solutions, Inc. (RIVA) is a larger 8(a) small disadvantaged business (SDB) working with the Federal government to provide innovative best practices in Management Consulting, Science and Engineering, Cyber, Agile, Cloud, IT Operations and Modernization, Artificial Intelligence/ Machine Learning, and Robotic Process Automation..

RIVA is an 8(a) SB focused on innovation, culture, and building our federal contracting community in 18 states nationwide.



ABOUT THE AUTHOR

David A. Callner is the Vice President of Technology Solutions for RIVA Solutions Inc. Mr. Callner is responsible for providing technical capture management of Federal and DoD opportunities to drive business growth, and leads RIVA's corporate technology practices to enable innovative solutions and capabilities; and facilitating the implementation of solutions and practices across programs to ensure service delivery excellence.



www.rivasolutionsinc.com • 8000 Westpark Drive, Suite 450, McLean VA 22102 • 571.327.5050