

ROBOTS AT WORK

# Horizontal and Vertical Applications

RPA TEAM, ISG



## EXECUTIVE SUMMARY

Businesses in a variety of industry sectors are aggressively pursuing Robotic Process Automation (RPA) initiatives. Broadly defined as software programs that act as digital “robots” to execute a wide range of routine and repetitive tasks traditionally performed by humans, RPA tools are delivering significant benefits in terms of improving key business processes and addressing critical industry requirements.

While headlines focus on cost reduction and on the replacement of human labor, many enterprises are finding that the true benefits of RPA lie in areas such as improving business performance, improving customer satisfaction, enhancing analytic capabilities and mitigating operational and financial risk.

This white paper – commissioned by Tech Mahindra – examines how enterprises are applying RPA capabilities to horizontal back office operations as well as to industry-specific processes and functions in financial services, mortgage banking and telecommunications. Through the use of case studies and observations of real-world experiences, the authors examine the range of benefits and results enterprises are achieving from RPA.

## HORIZONTAL APPLICATIONS

RPA solutions execute processes by accessing and interfacing with systems at the user interface level and by using “if/then” business rules.

RPA capabilities align closely with a variety of business processes. Basically, a robot can be taught to perform any type of activity or function that involves repeatable, definable and rules-based activity. “Swivel chair” applications that require data to be moved from one system to another are a perfect example. Other candidates include data entry, transactional processing, level-one customer service, invoice or claims reconciliations and policy and process document maintenance.

In terms of generic back office operations, Finance and Accounting (F&A) is ideally suited to RPA. Key processes impacted are outlined here:

For *Cross-System Processing*, multiple systems require multiple data input, such as changes to data structures (for example, adding a zero to the beginning of an account number). Middleware can provide solutions to these interfaces, but they are expensive and complex to implement. Software robots, meanwhile, offer a much simpler implementation option, carrying out the same steps as a human but at a fraction of the price, and with minimal system intrusion and 100 percent consistency with process requirements.

## ROBOTS AT WORK



*Data Consolidation* and Reporting comprises finance processes that require data inputs from many different sources, many of which are in different formats. This often creates bottlenecks in the process and introduces errors, or creates a requirement for manual intervention before the data can be used effectively.

RPA tools can take on much of the data gathering burden by effectively managing data readiness, cleanliness and input into the relevant finance process.

*Reconciliation*, one of the most manually intensive processes in the Finance function, involves the reconciliation of errors due to incorrect matching of data between documents. Because it requires inputs from different systems, the process is inherently non-standard in each case and can require judgement. However, by using inputs from other data sources, rapidly processing different matching options and applying semantic reasoning, RPA can replace much of the reconciliation task, significantly reducing the number of people required.

*Monthly Accounts Closure* is typically a complex, people-intensive process involving many data inputs, extensive reconciliation and some elements of judgement. While the time taken to close accounts has a direct impact on a business' financial position, 100 percent accuracy is imperative. While the bulk of the reconciliation work has traditionally required human input across many data sources, RPA combines several approaches described previously into one critical process.

*Bulk Data Updates* involve changes to multiple data records following changes in compliance regulations or the introduction of new systems. Additionally, monthly data processes such as billing runs can cause bottle-necks and require extensive human intervention to run smoothly. While scripting tools can provide a robust solution, they can sometimes take a significant time to develop and test, and require extensive IT involvement. Relying on humans to carry out the updates can be expensive and result in high rates of errors. RPA can quickly, simply and accurately update records using the existing systems and screens, but with minimal human (including IT) involvement.

## **INDUSTRY-SPECIFIC APPLICATIONS**

### **Regulatory Compliance for Financial Services**

Financial Services organisations face a daunting challenge in complying with increasingly stringent regulatory compliance standards regarding oversight of third-party relationships. Following the global financial crisis of 2008, regulatory agencies and legislative bodies issued guidelines that, among other things, put the onus of oversight on client organisations. Put simply, a breach in the service delivery chain – wherever or however it occurs – is ultimately the responsibility of the contracting party (the bank).

## **ROBOTS AT WORK**



RPA solutions can address some of the key imperatives banks face with regard to regulatory compliance. In contrast to a human worker, an RPA solution not only performs a process function exactly the same way every time, it provides a more detailed and sustainable audit log of activity – an essential criterion of compliance readiness. Another advantage of RPA is that tools can be easily scaled as well as quickly reconfigured or “taught” to perform a wide range of functions – ranging from invoice reconciliation to document review to data consolidation – without any need for training. Finally, by altering the fundamental premise of labour arbitrage, RPA redefines how sourcing location decisions are reached. This makes onshoring increasingly viable from a cost standpoint – and gives banks operating in high-risk offshore locations an additional lower-risk sourcing option.

### **Mortgage Loan Processing**

RPA applications that execute routine, rules-based tasks without human intervention can significantly improve the mortgage loan experience. While banks have made substantial progress in automating basic business processes related to mortgages, RPA can enhance efficiency by supplementing existing workflows.

A key opportunity for RPA lies in identifying and resolving errors and exceptions that today require a high level of human intervention. A high percentage of errors and process exceptions in mortgage lending are routine and can be resolved by applying clearly defined, rules-based algorithms, i.e., RPA applications. Automating the resolution of these errors and exceptions can go a long way toward clearing the bottlenecks that frequently hinder mortgage origination.

Beyond improving the operational efficiency of loan processes, banks and other financial service providers have a unique opportunity to leverage RPA to add business value. The mortgage customer is a prime candidate for a wide variety of additional services the bank may offer – insurance, savings programs, retirement funds and the like. For a bank, the challenge lies in connecting the dots between a given customer – and what’s known about that customer – and the bank’s other offerings that may be of interest.

At present, that process is people-intensive and slow in many environments. The opportunity lies in combining emerging cognitive applications that use pattern recognition and logic to analyse data and draw conclusions, together with RPA as a processing engine.

So, for example, a cognitive tool could discern from a loan applicant’s mortgage paperwork that the buyers are a family with two school-aged children and tag them as candidates for the bank’s college savings program. RPA tools could facilitate the process of getting the applicants into the marketing funnel of the appropriate product lines.



Augmenting rules-based RPA with cognitive tools would complement a broader customer-focused strategy driven by data analytics, social media and other technologies, leveraging foundational capabilities provided by RPA. Moreover, the tools can significantly enhance the data collection and analytics that enable that critical customer insight. And robots can easily extend to other bank offerings such as customer self-service, by, say, following up ATM interactions with recommendations for improved safety and security of a customer's savings or other assets.

## **Telecom**

Telecom providers constantly switch circuits off in response to service changes by customers who are either moving locations or switching to other services or providers. The customers can be end users as well as other telecom providers leasing circuits to gain access to geographies where they lack infrastructure. While relatively straightforward in principle, in practice the basic process to execute the decommissioning becomes very complicated very quickly. Confirming that a third-party circuit exists often requires an administrator to look in multiple systems to validate and re-validate account information with multiple sources.

As a result, the process for decommissioning a circuit rapidly devolves into fragmentation, characterized by complex one-to-many interconnections between myriad channels. Each swim lane of activity comprises multiple handoffs and checkpoints, each with the potential for delays, fall-outs and errors. Managing these processes has traditionally been a time- and people-intensive undertaking requiring multiple steps and checkpoints.

The good news is that, while complex and fragmented, the algorithmic, rules-based processes around circuit decommissioning are ideally suited to RPA capabilities. Telecom carriers are exploring the potential of smart tools to dramatically improve internal operations.

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