TATA CONSULTANCY SERVICES

Robots in the Back Office: The Future of Recruitment Enterprises

Abstract

As social and technological changes reshape the business landscape and new entrants stiffen the competition, staffing and recruitment enterprises must embrace practices that improve turnaround time and enhance service levels to survive the war for talent. This becomes even more relevant as the cost-per-hire and time-to-hire continues to rise in the face of global talent shortage which is currently pegged at whopping 40%.[1]

While the solution lies in adopting a lower cost-to-serve approach, large-scale technology transformations are expensive and come with their own set of complexities. Moreover, they don't always guarantee success. This holds true particularly for recruitment back office operations which rely mostly on ERP systems. As the industry grows primarily through mergers and acquisitions (M&As), the IT application landscape is further complicated by the presence of disparate legacy systems. Robotic process automation (RPA) can offer some relief by virtually integrating IT systems without disrupting business operations.

Inefficiencies within the Back Office

A typical post-to-hire cycle begins when the recruiter's clients post their job requirements by email, phone, and so on, and ends when the candidate is on-boarded. These front-office functions are extremely critical for day-to-day operations. However, for temporary staffing, which generally constitutes a large chunk of the overall revenue, the story does not end here.

A successful temporary placement may ensure recurring revenue for the company, but this can only be realized through meticulously organized middle- and back-office functions, such as timesheet management, billing, human resources (HR) management, finance, and accounting. These placements are usually done in large volumes and associate management activities become cumbersome especially when it comes to generalist staffing. Moreover, back-office teams need to coordinate with multiple clients, third parties, and internal business development and recruitment units — mostly depending on disparate IT systems and a diverse set of applications. They also need to keep track of their daily tasks through shared folders, multiple Excel sheets, and more, which translates to manually and repeatedly extracting data from one application to another.

RPA to the Rescue

Many companies often turn to emerging CRM and applicant tracking systems or ERP, which only add to the complexity of existing legacy IT infrastructure.

However, technology itself cannot be the solution. To ensure seamless collaboration and process efficiencies, enterprises need to empower people with solutions that provide the right

data at the right time. The answer lies in integrating RPA across back-office operations, as highlighted in Figure 1.
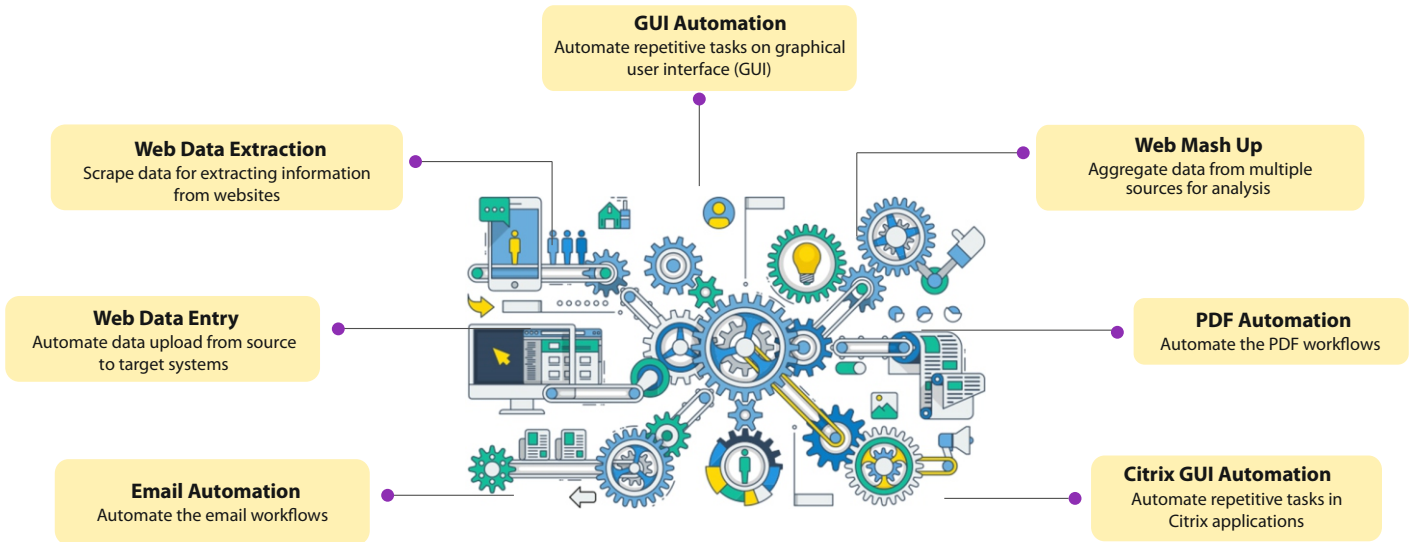

GUI Automation
Automate repetitive tasks on graphical user interface (GUI)

Web Data Extraction
Scrape data for extracting information from websites

Web Mash Up
Aggregate data from multiple sources for analysis

Web Data Entry
Automate data upload from source to target systems

PDF Automation
Automate the PDF workflows

Email Automation
Automate the email workflows

Citrix GUI Automation
Automate repetitive tasks in Citrix applications

Figure 1: Key RPA Levers for Automating Recruitment Back-office Operations

Case Study: Process Assessment for Leading Global Recruitment Company

Business Process: Order-to-Cash

Objective: Assessing existing middle- and back-office processes to identify opportunities for implementing RPA to ensure operational efficiency and improve existing service levels

Key Findings: After a thorough study of the order–to-cash cycle, we found a large number of manual repetitive tasks across the back office. In some cases, RPA became absolutely necessary for more than 40 tasks (as shown in Figure 2).
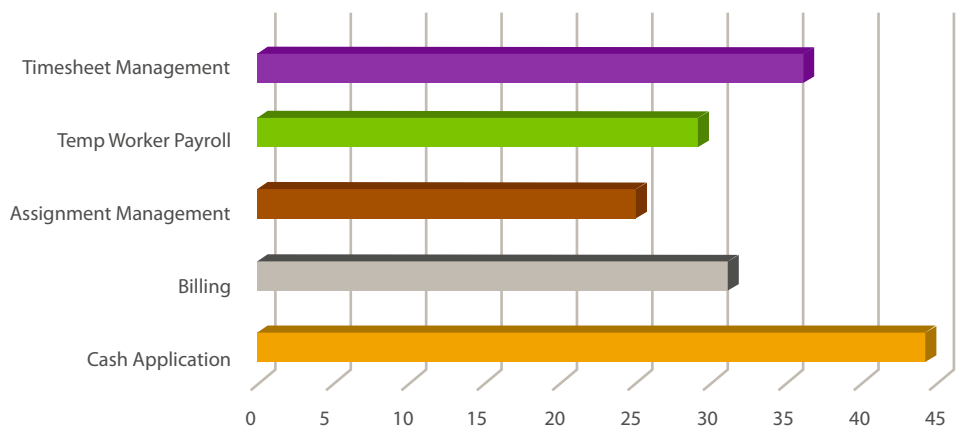

Figure 2: Manual tasks suitable for RPA at the Leading Recruiter

RPA in Action across the Back Office

A successful placement against a temporary job entitles staffing companies to raise invoices for services rendered while undertaking the liability of processing the hire's payroll. However, the whole middle- and back-office cycle is replete with manual tasks suited for RPA.

Before adopting such a solution, though, companies must analyze their as-is processes and systems.

- **Assignment management:** This involves managing daily tasks by tracking contract additions, closures, and renewals. Raw data needs to be extracted from middle-office systems and a set of fields are required to identify new assignments, which are then entered manually into the back-office systems. The number of data fields here can be as high as 100 in some cases.

  RPA applicability (web data extraction, web data entry): Data extraction can be easily automated, while using embedded logic to identify new assignments. The eligible records can then be automatically processed and entered into the underlying target system – be it an ERP or a non-ERP application.

- **Time capture and processing:** Being a critical middle-office process, this is usually executed in numerous ways. It can be as simple as maintaining internal time-keeping systems. It could also involve a vendor management system (VMS) which are not integrated with the enterprise's applications. Or, it may rely on emails and faxes, which is tedious and complicated. More often than not, a combination of these time keeping methods are deployed.

  RPA applicability (email automation, GUI automation): RPA can simplify complex time-keeping tasks, particularly those that involve emails and VMSs. An RPA solution can read information from the source (such as, time data from in-coming emails) before populating them in HRMS or similar systems. Email automation also enables sending out timely reminders for filling in timesheets and tracking responses received.

- **Temp worker payroll:** Processing this is primarily a weekly exercise but requires daily preparations to ensure success. This begins with uploading each associate's available time data and processing exception records. This is followed by uploading benefits data and reconciling pay rates between front- and back-office systems before a final payroll run. A part of this activity also involves responding to associate queries and concerns.

RPA applicability (email automation, web Mashup): RPA can automatically reconcile time and pay rate information present across multiple front- and back-office systems. It can gather benefits data from emails and put them in predefined Excel sheets before processing. Finally, it can initiate various steps on ERP or HRM systems to prepare for the payroll run.

- **Cash application:** This begins after receiving payments from respective clients. Although, this process varies across recruitment companies, but two major sub-processes revolve around the processing of VMS and non-VMS receipts. Some also consider inter-enterprise fund transfers between group companies along with franchises as part of this process. Today, most unapplied cash receipts are processed manually.

  RPA applicability (GUI automation, email automation): RPA can aggregate and categorize all unapplied cash receipts. It can also merge this data with clients' manual remittance records for processing, based on a set of predefined business rules. Follow-ups and tracking unapplied items over emails can also be automated.

- **Billing:** Usually, staffing companies initiate this process by manually extracting contract extension, cancellation, and modification data from front-office applicant tracking systems. Some of these changes are received through emails. Before generating invoices, temporary workers' attendance and timesheet data are reconciled along with validation of pay and bill rates. The final task involves creating, consolidating, and delivering invoices – and if required, rectifying these according to client feedback.

  RPA applicability (GUI automation, PDF automation): As shown in Figure 3, web data extraction bots can crawl through necessary documents across source systems, while the email workflow automation system picks up additional information from mails to initiate billing process. Reconciliation is performed using a web mashup, enabled by GUI automation that picks-up information by automatically logging into various time-keeping applications and VMS. Rule-based decision making is enabled by embedding logic into the bots before deployment to ensure necessary reconciliation of information present in existing front- and back-office systems. In case specific preferences need to be applied, mini bots ensure such data is kept up-to-date by compiling the same from emails and client systems. Eventually, invoices can be delivered as PDFs and emails through workflow automation.
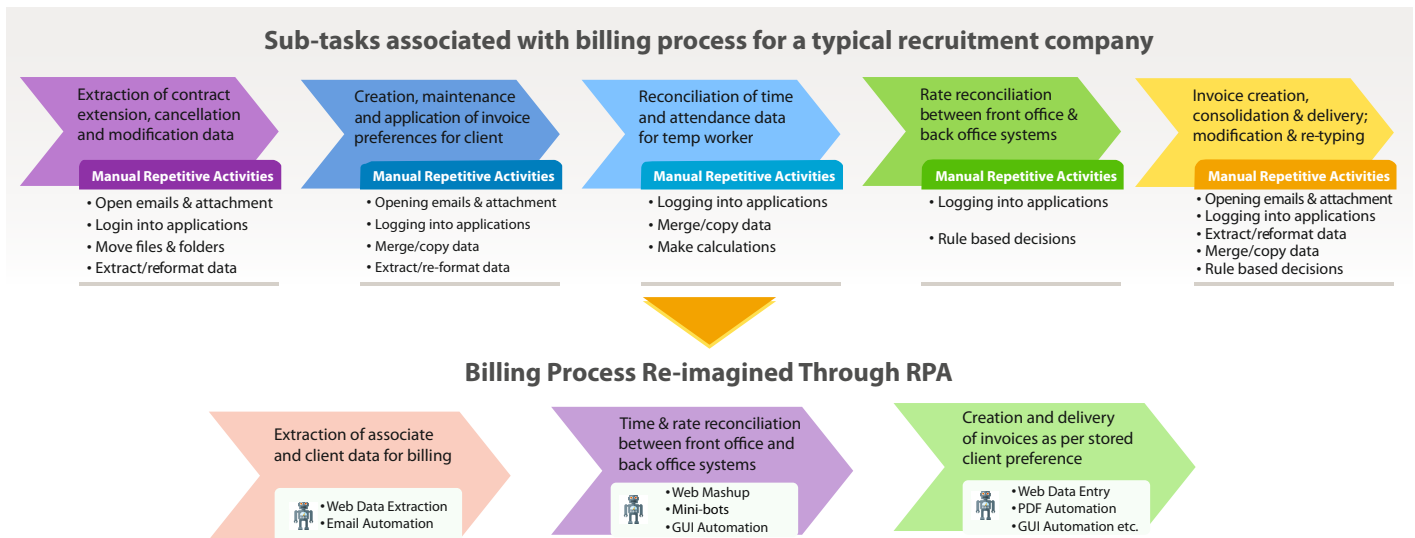
Sub-tasks associated with billing process for a typical recruitment company

Extraction of contract extension, cancellation and modification data

Manual Repetitive Activities
- Open emails & attachment
- Login into applications
- Move files & folders
- Extract/reformat data

Creation, maintenance and application of invoice preferences for client

Manual Repetitive Activities
- Opening emails & attachment
- Logging into applications
- Merge/copy data
- Extract/re-format data

Reconciliation of time and attendance data for temp worker

Manual Repetitive Activities
- Logging into applications
- Merge/copy data
- Make calculations

Rate reconciliation between front office & back office systems

Manual Repetitive Activities
- Logging into applications
- Rule based decisions

Invoice creation, consolidation & delivery; modification & re-typing

Manual Repetitive Activities
- Opening emails & attachment
- Logging into applications
- Extract/reformat data
- Merge/copy data
- Rule based decisions

Billing Process Re-imagined Through RPA

Extraction of associate and client data for billing
- Web Data Extraction
- Email Automation

Time & rate reconciliation between front office and back office systems
- Web Mashup
- Mini-bots
- GUI Automation

Creation and delivery of invoices as per stored client preference
- Web Data Entry
- PDF Automation
- GUI Automation etc.

Figure 3: Billing Process Transformation through RPA

There can be many more automation opportunities for recruitment enterprises depending upon the nature of back-office processes in place and existing application landscape. RPA-led process redesign will not only result in increased productivity, but will also reduce cycle time and daily sales outstanding (DSO) – improving billing accuracy, and ensuring compliance.

The Recruitment Back Office of the Future

As AI and cognitive process automation comes to the forefront, we can hope to enhance the efficiency of current RPA tools even further. For instance, the system can learn from the actions taken to resolve an exception from automated billing process to improve performance and productivity. Soon, AI powered bots will automate and manage manual processes, freeing up human agents to focus on core operations. These bots will not only verify contract terms but also manage service staff in the field, among other activities. The expected return on investment for such a solution will compound with every year that it spends in operations. Such dynamic automation solutions can cater to changes in business processes without the need for reconfiguration.

References

[1] ManpowerGroup, 2016/2017 Talent Shortage Survey, accessed on 23 February, 2018, https://www.manpowergroup.us/campaigns/talent-shortage/assets/pdf/2016-Global-Talent-Shortage-Infographic.pdf

About The Author

Naveen Pathak

Naveen Pathak leads the Staffing and Recruitment Domain Centre of Excellence (CoE) within TCS' HiTech business unit. He is responsible for strategizing, conceptualizing, designing, developing, implementing, and supporting IT solutions for the staffing and recruiting business. With over 12 years of experience, Pathak has played several key roles across IT consulting, pre-sales, and delivery in the professional services domain.

He is a TOGAF certified Enterprise Architect and holds a Bachelor's degree in Technology from BIET, Jhansi, India, and a Post Graduate Diploma in General Management from XLRI, Jamshedpur, India.

Contact

Visit the Hitech page on www.tcs.com

Email: HiTech.Marketing@tcs.com

Subscribe to TCS White Papers

TCS.com RSS: http://www.tcs.com/rss_feeds/Pages/feed.aspx?f=w
Feedburner: http://feeds2.feedburner.com/tcswhitepapers

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at www.tcs.com

Experience certainty.   IT Services
Business Solutions
Consulting

TCS Design Services I M I 03I 18