Robotic Process Automation at Telefónica O2

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Executive Summary

Robotic Process Automation (RPA) is a new breed of process automation software provided by Blue Prism, Automation Anywhere, IPsoft, UiPath and others. In RPA parlance, a “robot” is equivalent to one software license. RPA is used to automate the work previously done by people in so-called “swivel chair” processes where a human sits in a swivel chair at a workstation and takes in work from many electronic inputs (like emails and spreadsheets). After processing the work using rules and adding data as necessary by accessing more systems, the human inputs the completed work to yet other systems, like enterprise resource planning (ERP) or customer relationship management (CRM) systems.

RPA Software is Ideally Suited for “Swivel Chair” Processes

Many RPA tools are easy enough to use so that business operations staff, including people with process expertise but no programming experience, can be trained within a few weeks to automate routine “swivel chair” processes.

The full article describes the case of O2, a U.K mobile telecoms operator and an early adopter of RPA. The case shows that RPA can deliver faster and more accurate performance of routine back-office processes, and annual returns on investment of up to 200%.

However, some CIOs and IT people question the need for RPA, believing that business process management (BPM) solutions can do everything that RPA can do. But there are two essential differences between RPA and BPM.

Robotic Process Automation Vs. Business Process Automation

1. RPA is Relatively Easy to Configure; Developers Don’t Need Programming Skills. RPA interfaces work a lot like Microsoft Visio; users drag, drop and link icons that represent steps in a process and the software automatically generates code. Business operations people with process and subject matter expertise, but with no programming experience, can be trained to automate processes in just a few weeks. In contrast, BPM solutions require coding expertise.

2. RPA is “Lightweight” IT That Does Not Disturb Underlying Computer Systems. “Lightweight” IT is front-end, commercially available software that supports processes and can be adopted largely outside the control of the IT department. RPA technology sits on top of existing systems and accesses them in the way a human does—through the user interface with a logon ID and password. Because RPA accesses other systems through the presentation layer; the underlying business logic is not touched. RPA products do not store any data. In contrast, BPM solutions interact with business logic and data access layers. However, RPA cannot be deployed outside the control of IT completely. The software must still be consistent with IT governance, security, architecture and infrastructure regulations.

RPA does not replace BPM, but rather complements it—each is suited to automating different types of processes. BPM solutions are developed by IT staff and are best suited for processes requiring IT expertise on high-valued IT investments like ERP and CRM systems. The significantly lower IT investment cost of RPA makes

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1 The full article is published in the March 2016 issue of MIS Quarterly Executive, available online at www.misqe.org.
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Robotic Process Automation (RPA) has become financially viable to automate many more routine business processes. RPA substantially lowers the threshold of processes worth automating.

RPA Outcomes at O2

As of April 2015, O2 deployed over 160 “robots”—i.e., RPA software licenses—that process between 400,000 and 500,000 transactions each month, yielding a three-year return on investment of between 650% and 800%. For some processes, RPA reduced the turnaround time from days to just minutes. As a consequence, customer “chase up” calls were reduced by over 80% per year because fewer customers need to inquire about the status of service requests. Scalability was another benefit—the number of robots could be doubled almost instantly when new products were about to be launched—and then scaled back down after the surge. How O2 achieved these outcomes is described in the full article.

RPA Action Principles

Five action principles (suggested practices based on actions that produced desirable results or on actions to avoid because they produced less than desirable results in real world implementations) have been derived from the O2 case, and from other case studies conducted by the authors.

1. **Test RPA Capabilities with a Controlled Experiment.** O2 carried small-scale pilots to test the technical viability and financial value of the RPA product. An interesting twist extended the proof-of-concept into a controlled experiment that allowed O2 to directly compare RPA with BPM for automating “swivel chair” processes. Functionally, the solutions were nearly identical, but RPA delivered better financial value.

2. **Develop Criteria for Determining Which Processes Can Be Automated.** Criteria similar to those used to determine which processes are suitable for moving to shared services and outsourcing can also be applied for RPA. These include high volumes, high levels of process standardization, rules-based processes, and mature and well-documented processes. O2, however, developed a simple heuristic—a process can be automated if automation can save at least three full-time equivalents (FTEs).

3. **Bring IT Onboard Early.** In many cases, RPA had initially been deployed without involving IT, but with hindsight this was found to be a mistake. To start with, O2 experienced slow response times because the IT infrastructure had not been optimized for the RPA software. Earlier involvement of IT could have avoided this problem. Some RPA adopters said their IT departments were in a better position than business operations to ensure the software complied with IT security, auditability and change management policies.

4. **Communicate the Intended Effect on Jobs Early in the Process.** As with any automation technology, some employees will feel threatened by RPA because they fear it will replace their jobs. The best time to communicate that the organization is considering RPA is at the proof-of-concept/controlled experiment stage. The operations groups in O2 adopting RPA promised that automation would not result in layoffs. Instead, automation was used only for the structured “swivel chair” tasks associated with a job, and workers were redeployed to do more interesting work. However, the number of FTEs in O2’s offshore business process outsourcing (BPO) partner was reduced by several hundred.

5. **Exploit New Automation Sourcing Options.** When O2 began its RPA journey in 2010, BPO providers and advisors did not offer RPA services, so the only option was to *insource* (i.e., buy RPA licenses directly from an RPA software provider and do the process automation in-house). Organizations now looking at RPA have more sourcing options, including: (1) *insource and consulting* (buy licenses directly from an RPA software provider and engage a consulting firm for services and configuration), (2) *outsource with a traditional BPO provider* (buy RPA as part of an integrated service delivered by a traditional BPO provider), (3) *outsource to an RPA provider* (buy RPA from the new breed of RPA outsourcing provider) and *cloud-source* (buy RPA as a cloud service, though this option is still emerging).

In conclusion, CIOs and other IT professionals have a key role to play in assessing and supporting Robotic Process Automation. By understanding RPA’s capabilities, the IT department can become an advisor to business operations, rather than being viewed as bureaucratic “buzz-kills.” Even if RPA is “owned” by the business, IT governance is vital to ensure that RPA processes have been validated and the IT infrastructure is optimized.