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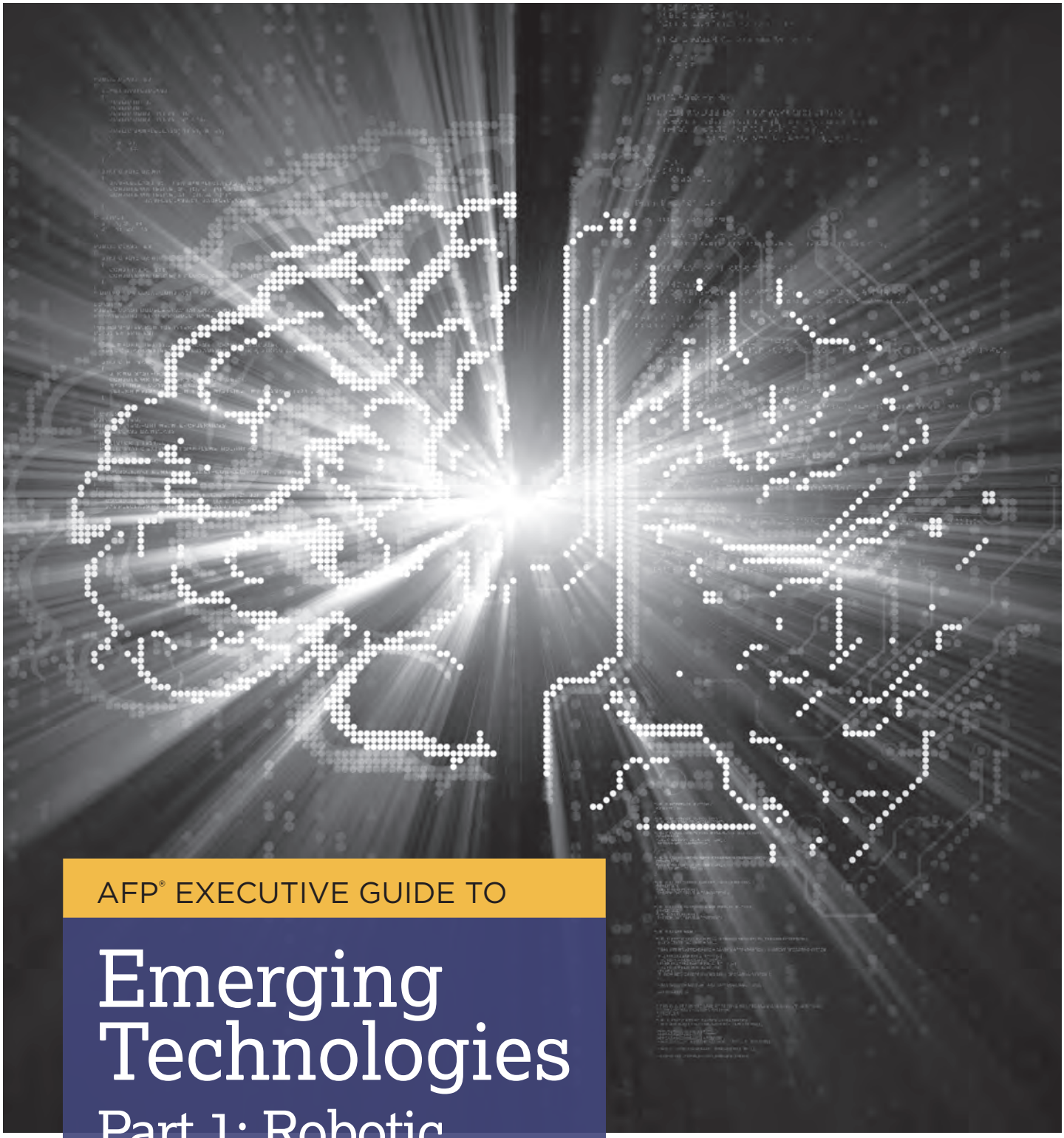

AFP® EXECUTIVE GUIDE TO

Emerging Technologies

Part 1: Robotic Process Automation

Underwritten by:

kyriba

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CONTENTS

AFP® EXECUTIVE GUIDE TO EMERGING TECHNOLOGIES PART 1: ROBOTIC PROCESS AUTOMATION

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Kyriba is excited to sponsor the AFP Executive Guide to Emerging Technologies, a two-part guide to help treasury navigate upcoming treasury technology.

Technology innovation is critical to the evolution of treasury and finance, driving productivity improvements alongside better insight and analysis. Emerging technologies such as Robotic Process Automation (RPA) and Artificial Intelligence (AI), driven by machine learning, will have a profound effect on not only the efficiency of treasury but also the composition of treasury staff's daily duties.

Enabled by innovative technology such as RPA and AI, treasury teams will have the opportunity to extend their abilities beyond the current boundaries of cash and treasury management, expand visibility and controls to better understand and manage risk, while transforming data and information into treasury intelligence.

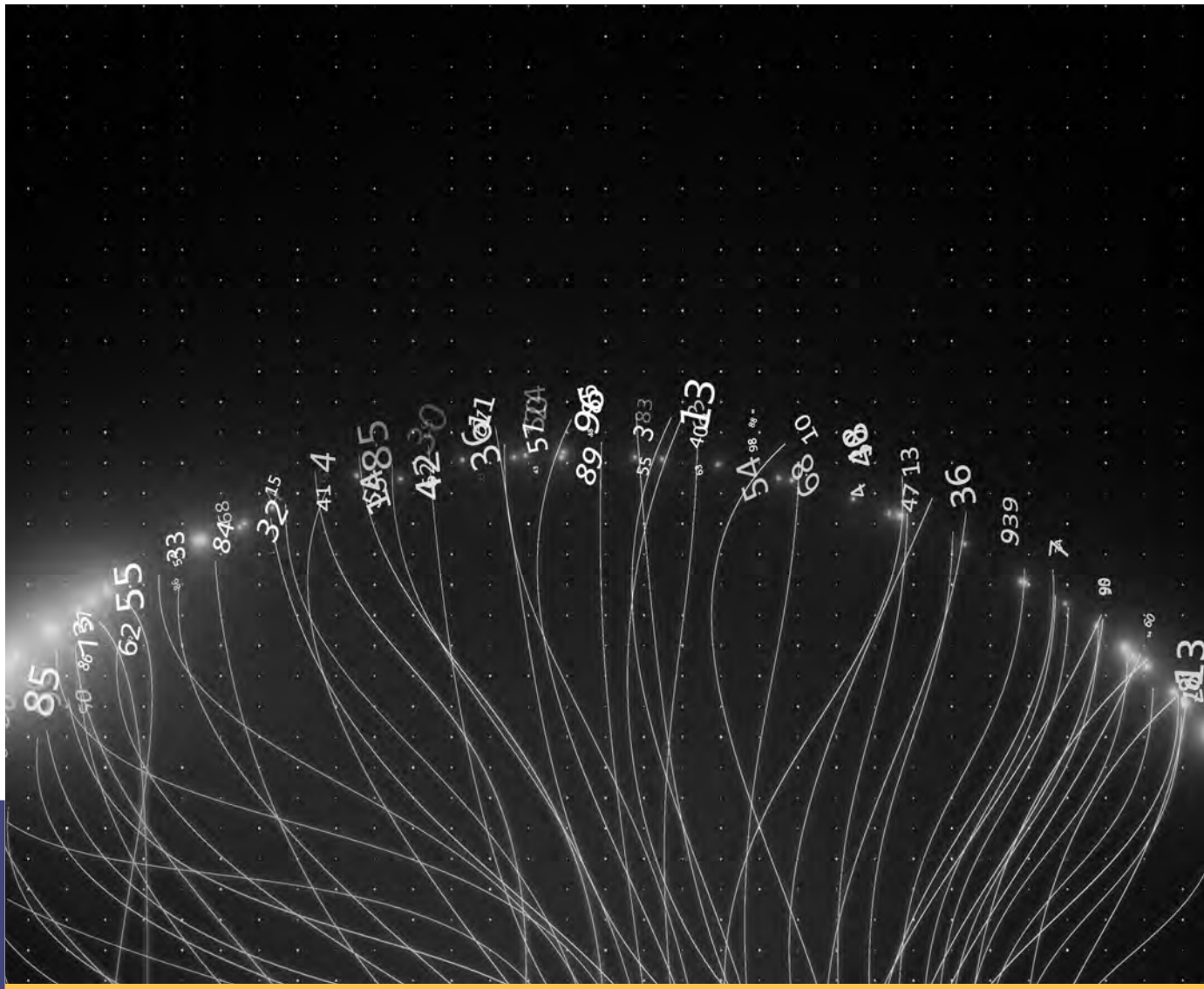
This two-part guide will introduce you to:

1. Understanding Robotic Process Automation and its application to today's treasury, including the most common use case of automating data entry and mouse clicks across multiple systems
2. Distinguishing between RPA and Artificial Intelligence, which is commonly enabled by machine learning
3. Appreciating the business transformation that Artificial Intelligent treasury systems can deliver, adding to the value treasury teams offer to their organizations
4. Offering insight into the future of treasury within a robotic process driven, artificially intelligent world

Kyriba is a proud sponsor of this AFP Executive Guide to help CFOs and treasurers become better informed about the next generation of treasury technology. Please enjoy this guide.

Best regards,

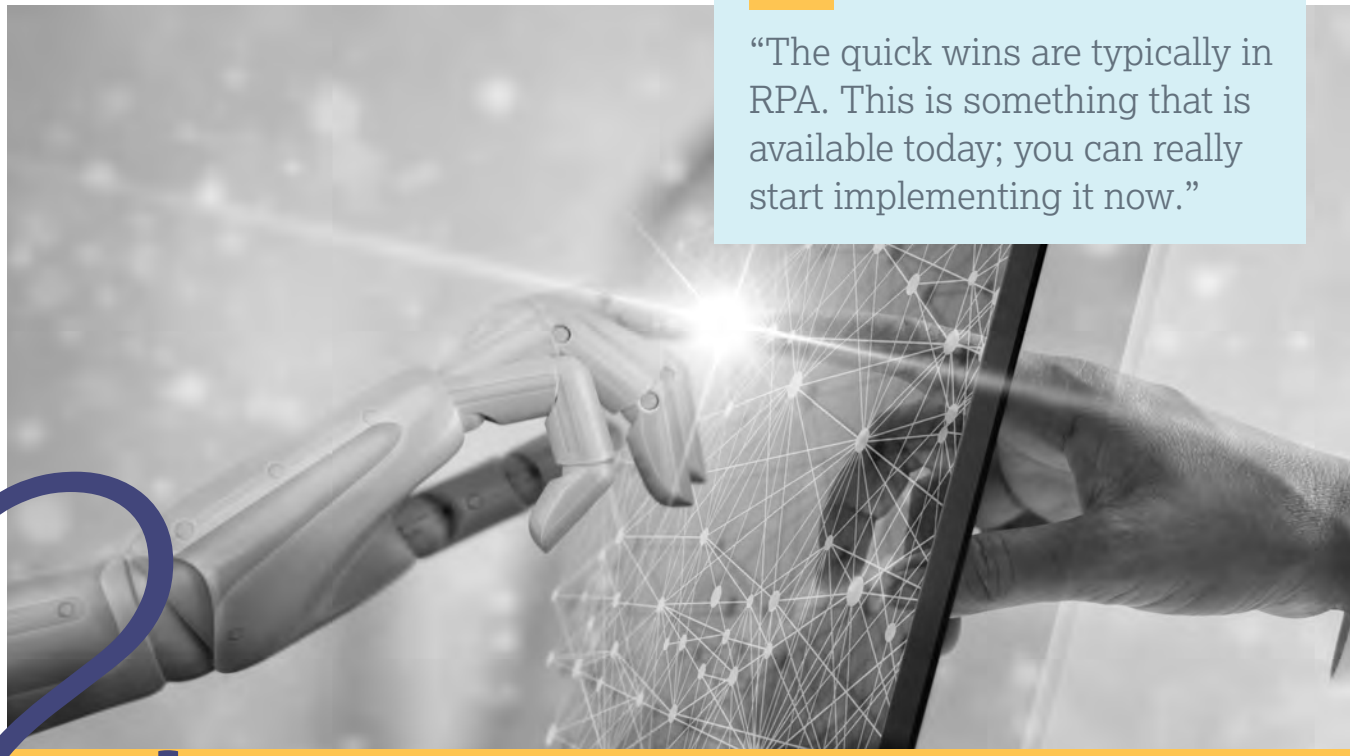
Bob Stark
Vice President, Strategy



INTRODUCTION

Emerging technologies are changing finance functions from the top down. In particular, treasury and finance executives are being forced to evaluate how robotic process automation, artificial intelligence and machine learning can enhance their operations overall.

This Executive Guide, underwritten by Kyriba, explores why and how these technologies are reshaping finance. It will be released in two parts; this first section looks at RPA and how treasury departments are applying it to improve their processes.



> "The quick wins are typically in RPA. This is something that is available today; you can really start implementing it now."

2 ROBOTIC PROCESS AUTOMATION

Robotic process automation (RPA) is the next step in the evolution of automation, using a software robot that mimics human actions. It is typically used in treasury and finance to streamline repetitive, manual processes, freeing practitioners up to focus on more strategic work.

According to AFP 2019 speaker Laurens Tijdhof, Partner at Zanders, while there are many new technologies that will ultimately be adopted by treasury, RPA is one that is already having an impact. "The quick wins are typically in RPA," he said. "This is something that is available today; you can really start implementing it now."

Tijdhof noted that other new technologies such as big data, machine learning and blockchain/distributed ledger technology require much more time and preparation to implement. "You need to have a data strategy to prepare for [those technologies], and you have to make sure your system environment is ready to process these new techniques," he said.

However, even though RPA is easier to adopt than some of these other innovations, that doesn't mean that corporates are flocking to it *en masse*. The technology is still new and it will still take some time before it becomes mainstream in treasury and finance. "It's not very prevalent out there right now and I think corporates are basically exploring these things in terms of pilot testing and they're starting small," said Kelvin Ang, Director, Treasury Advisory Group, Americas Head for Citi.

Ang, who will is speaking in a session at AFP 2019, noted that many finance departments are playing the wait and see game, seeing what their peers are doing with RPA and whether it makes sense to follow their example. "Everybody's trying to figure out who is doing what," he said. "'What can I learn from company A and company B? What are they exactly working on? And more, importantly why are they doing that?' We're not talking about the traditional, typical treasury management system. We're talking about new tech."

3 RPA USE CASES

Although many companies who have adopted RPA are still in the pilot stage, others have taken the initiative and are applying the technology in a number of different areas. Zanders' Tijdhof has observed multiple treasury and finance departments using RPA for many functions; one organization that he has worked with has automated over 50 tasks. Some of them are fairly complex, such as getting FX exposure information from various systems and access points into one consolidated overview.

Ang has also observed finance functions primarily apply RPA to tried and tested processes—highly replicable, standard tasks that do not require a high level of deviation. "It's used for the simpler tasks like, for example, cash positioning," he said. "So, in treasury, every morning, there is a treasury analyst who comes in, turns on the systems and enters the opening balance for the day. Then, he/she looks for information on the expected payments and expected receipts, and comes up with the expected end-of-day balance.

"Some companies are now automating this process so that when an analyst arrives in the morning, they no longer have to do this, but instead spend time onthe decision-making process" Ang continued. "This is a great example in terms of a very standard procedure whereby you can apply RPA."

RPA can also be used very effectively in bank reconciliation. This technology is essentially not new; treasury management systems (TMS) have had a built-in code that allows them to match an amount in the ledger against a corresponding amount in a bank statement. What's new is that RPA adds a bit more complexity, so that it's not just simply matching dollar amounts and banks. RPA allows you to more easily jump from one system to the next (i.e., move from the TMS to the ERP), gathering more data in less time.

> "Treasurers should look at the processes where they are spending a lot of time—where you take data from one place and have to rekey it into another place. Look at how much time you're spending and do some cost estimates. Then look at what it would cost you to automate those processes using RPA."

Ravi Iyer, CTP, Assistant Treasurer for Mallinckrodt Pharmaceuticals who discussed his organization's RPA pilot project at AFP 2018, noted that most treasury and finance departments who are using RPA are doing so to streamline repetitive, manual processes. "Treasurers should look at the processes where they are spending a lot of time—where you take data from one place and have to rekey it into another place," he said. "Look at how much time you're spending and do some cost estimates. Then look at what it would cost you to automate those processes using RPA."

Ang likened the technology to macros. "I would say that most people understand what a macro is," he said. "If they think about clicking on the exact steps that they're trying to do, recording all the moves and then playing back again every single time they want to run or refresh the data. RPA does exactly that, except that it crosses and moves across the different systems and different environments."

4 MAKING THE CASE

Building the business case for adopting new technology—any new technology—can be a tall order for treasury and finance. Many treasury functions have been running the same treasury management system (TMS) for a very long time; for example, Allianz has been using the same system for 30 years.

In her conversations with treasury and finance peers at other organizations, Camille Felton, CTP, FP&A, Senior Lead Analyst, Financial Analytics and Solutions for Chick-Fil-A, has found that it is often quite difficult to get buy-in from senior leadership to invest in RPA technology. "This is not an easy startup cost to be able to swallow," she said. "It may be a little bit more cost-prohibitive for treasury in organizations where funding is tight. Yet we must think about RPA as a longer-term strategic decision versus a short-term return."

However, companies may find it easier to sway management to approve adoption of RPA over purchasing or upgrading a TMS for one key reason. The bot can be used anywhere in the company, noted Sarah Schaus, Assistant Treasurer and AVP for Allianz Life Insurance Company of North America. A TMS only touches the treasury department, but a bot can impact the entire organization.

> "In the treasury environment, whenever there's a natural attrition, somebody leaves or somebody retires from a treasury team, they don't go and hire a treasury or finance person or an ex-banker. They go out and hire a data scientist. They go out and hire an engineer. They go out and hire people with new skillsets, to try to look at the same problem through a different lens."

5 GREATER IMPLICATIONS

Whenever the topic of RPA comes up at a treasury and finance conference or forum, the conversation typically turns to whether adopting the technology could ultimately result in some practitioners losing their jobs to machines. The counterargument to that is that RPA frees up financial professionals from having to execute all of those manual processes so they can focus on strategy. The reality is probably somewhere in the middle; some jobs will ultimately be lost, whereas some individuals' roles will ultimately become more valuable, as they're not bogged down by busy work.

Bob Stark, Vice President of Strategy for Kyriba noted that his treasury clients have all reported productivity improvements after implementing RPA. In every case, this has led to treasury driving more value for the finance team. "Treasury always has more projects than they have time for, so the ROI is relatively easy to measure," he said.

Citi's Kelvin Ang believes that some jobs may be lost, especially those that oversee smaller manual processes. "As companies start to automate more and more—and we see this a lot, not just in the treasury environment, but in the business operations as well. If you think about a car manufacturer— during the good old days, they manufactured and assembled cars all over the shop before the automated line came in," he said. "So, what happened with the automated line is similar to what is happening here. The technology comes in and you're bumping up efficiency. And guess what? Jobs become redundant along the way, largely due to technological advances."

That said, this isn't a sci-fi movie; there probably will not be a time in which machines take over everything, Ang added. "Humans are still required, as long as there is a certain level of complexity in terms of what is to be done," he said. "All you really need to do is shift the job focus from being tactical to more strategic."

Ang has observed a bit of a mindshift in the hiring process in treasury departments. "In the treasury environment, whenever there's a natural attrition, somebody leaves or somebody retires from a treasury team, they don't go and hire a treasury or finance person or an ex-banker," he said. "They go out and hire a data scientist. They go out and hire an engineer. They go out and hire people with new skillsets, to try to look at the same problem through a different lens."

So for people who feel they might be at risk of losing their jobs to RPA, it can be a good idea to expand their skillsets. When Schaus adds new team members at Allianz, she seeks out individuals with robotics experience, preferably with the systems her team works with. But for her treasury group, she simply looks for individuals with an interest in learning the technology. "We send them through the training offered by the vendor, and have them shadow our other internal RPA experts," she said.

And in Allianz's case, RPA has actually created jobs rather than reduce them. The RPA team has grown from three people to seven. Nevertheless, Schaus also knows that as more businesses adopt RPA, certain positions will eventually be phased out. "I understand that people are nervous about losing jobs, but it's going to happen," she said. "So my thought is, why don't you be one of those early adopters? Why don't you raise your hand and say that you're interested in robotics, so that you do make yourself marketable for the future?"

CASE STUDY: CHICK-FIL-A

In October of 2018, Chick-fil-A's finance department embarked on an RPA pilot for multiple use cases. One of the biggest challenges for the quick service restaurant chain was that it was experiencing rapid growth, and finance was experiencing capacity constraints as a result.

"Even if we wanted to hire more people, we could not find that many people fast enough to get them on board and up-to-speed in order to do the work at the pace it was growing," said Camille Felton of Chick-fil-A. "One of the things we really struggled with is that everyone at Chick-fil-A today, like other companies, is running at 110% capacity. So we really just said, 'Let's take some transactional work and see if we can reduce that effort to free up capacity in areas that need it most.' And those use cases were so successful that we were quickly able to see the value that this could have in the business."

> "We said, 'What if we used a robot to pull down all of our transactional and balance activity from every single bank that we have?' And then we can use some tools to push that downstream so that at any given time, we could have the cash position readily available."

For treasury, the pilot use case was related to their cash position, which Chick-fil-A had previously performed manually in Excel. Chick-fil-A's cash management team had created multiple process efficiencies, but they were ultimately gathering copious amounts of data and then populating spreadsheets. While some of their banks had application programming interfaces (APIs) that could be leveraged to pull necessary inputs, others had not yet explored this capability. Additionally, APIs or even using a TMS required initial connection and ongoing support from an IT team that was equally strapped for time, so the treasury team stuck within technologies where they had direct expertise.

Enter RPA. "We said, 'What if we used a robot to pull down all of our transactional and balance activity from every single bank that we have?' And then we can use some tools to push that downstream so that at any given time, we could have the cash position readily available," Felton said. "That initial value-add pilot began to show everyone what RPA could do. Ultimately, we created a new group to do specifically RPA in financial services."

RPA was also used to resolve reconciliation issues in accounts payable (AP). "Chick-fil-A had an opportunity to improve the efficiency of matching what we ordered at our stores versus what we were invoiced. Initially, this was done more manually than we'd like to admit, again via Excel," she said. "But with RPA, we were able to utilize a bot to identify **variances** and report the discrepancies to our teams instead of them spending valuable time on this research daily."

Now with RPA, AP, treasury and all of financial services have begun to see process efficiencies that are freeing up teammates' time to shift their focus towards data-driven decisions.

Again, these may sound like problems that would be easily solved with a treasury system. However, in Chick-fil-A's case, it made more sense to go a different way. "Five years ago, we felt we were too small for a TMS," Felton said. "We just didn't have many banks. Now we're seeing we have a need for that, but we've found other ways around it because of our IT's capacity constraints. Due to our growth, IT's time is focused, rightfully so, on keeping the wheels on the bus for existing systems and their changes. If we were to implement a TMS, we'd get it stable and then turn around and say, 'We want to add another bank,' or, 'We want to change tools.' Our business is evolving faster than the pace of current IT implementations."

So RPA may be ideal for treasury departments that want to connect disparate systems but don't have the bandwidth to support a TMS or an API. "If we had a centralized data management platform that could help different systems talk to each other, as well as manage documents in a better way across departments, then we maybe we could use that instead," Felton said. "But in absence of that, and in absence of a TMS, RPA pairs well with other things."

CASE STUDY:
ALLIANZ LIFE INSURANCE COMPANY OF NORTH AMERICA

In 2016, the CFO of Allianz Life Insurance Company informed its finance department that it needed to reduce its expenses by the end of 2019. Allianz's U.S. finance arm had already been in the process of cutting costs significantly over the past five years, having moved much of its work to its sister company, Allianz India. Trimming expenses further required the next step in the solution toolbox, hence the adoption of RPA, explained Sarah Schaus of Allianz. "What we're doing is reallocating resources," she said. "That's the way a perfect model should work."

The RPA implementation has been largely successful since finance took time to build out the process for using RPA, rather than just implementing the technology without any familiarity and learning on the fly. According to Schaus, it has vastly improved accuracy in treasury and finance, while performing repetitive tasks and transferring data from one system to another. Perhaps most importantly, it makes no errors.

> "Number one, like everything else, the upgrade always takes longer than you expect. And number two, you do need to maintain your manual processes in case there is an issue with the robots, and it takes a day or two to fix them."

The finance department began by purchasing three basic bots, one for treasury, one for controllers and one for corporate enterprise processes. The company also purchased a component called a scheduler, which sets up the times you want certain processes to run.

Schaus noted that adopting a bot takes about three months and should really just be looked at as the implementation of a process. "You just put that process on whatever bot has the capacity for it and isn't going to need to run the same time another process is running," she said. "So a bot is basically just an empty database and you're able to program each of your processes on it."

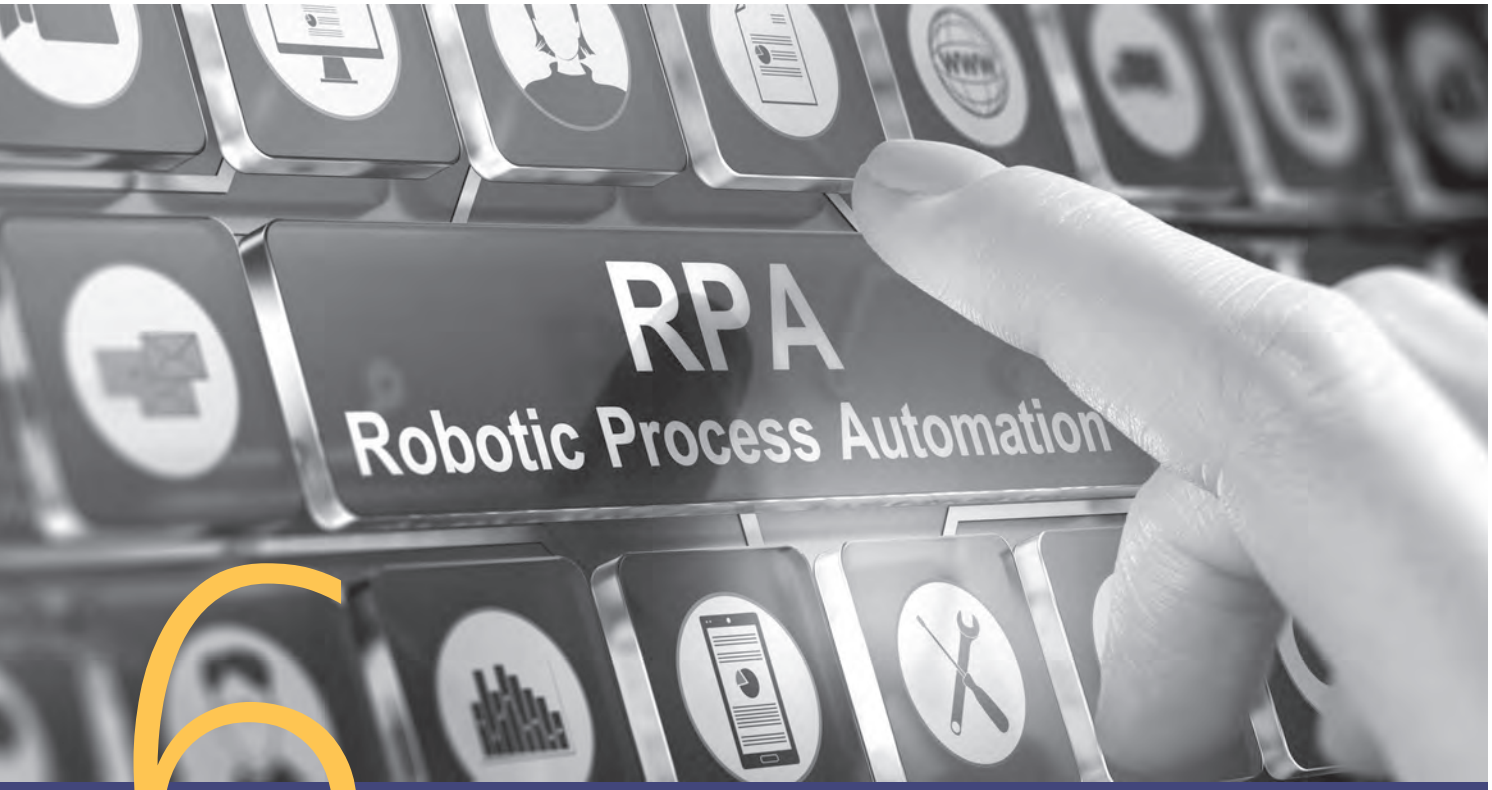
Finance recently performed an upgrade to the bot software, which proved to be a learning experience for the finance department. "Number one, like everything else, the upgrade always takes longer than you expect," Schaus said. "And number two, you do need to maintain your manual processes in case there is an issue with the robots, and it takes a day or two to fix them."

RPA has already proven to be a huge success. Schaus formerly had an employee that came in at 8:00 a.m. on Monday morning to run a report from the week before. Now, the bot performs this task at 4:00 a.m. The report is there for the manager to review, and robot never pulls the wrong dates or data. In short, RPA reduced a 30-minute task to three minutes.

Using a bot has also improved processes for the reconciliation team. The team reconciles policyholder tax payments, and their ledger doesn't hold details; it's purely summary-level. "So we created a process for the bot to ensure all of the individual policyholder payments tie with the journal entry on a daily basis," Schaus said. "And that went from four hours of a person doing all of this to a bot and a person—because the bot can't do 100 percent of it—to one hour a day."

Finance began its RPA implementation by setting several goals, including training a single pilot robot with four processes, assessing the results of implementing RPA on a larger scale, and creating post-pilot robot implementation processes within controllership and treasury.

Having now achieved all of those goals, Schaus is now focused solely on the treasury bot. "It's gotten to the point where we've created an InfoPath document within SharePoint for treasury employees to put ideas of what processes could go on the robot," she said. "As a leadership team within treasury, we meet to help prioritize those for the RPA team, as well as for the business within treasury, so they have an understanding of what process is going next and why. Now we're just going through the list of what we'd like to implement and knocking them out, one-by-one."



6 READY FOR RPA?

According to the **2019 AFP Risk Survey**, underwritten by Marsh & McLennan Companies, fully 25 percent of respondents said they use RPA, artificial intelligence and blockchain in some capacity. RPA particularly shows promise in reporting, reconciling and routine data entry. However, in the same survey only a year earlier, the majority of financial professionals named RPA as a technology that could expose their companies to risk. Despite that, few respondents said they were significantly prepared to manage that risk.

That's the problem with new technology; while in theory it can improve internal processes and free up the department to do more strategic work, there are also a lot of unknowns. Moreover, unless your finance department has a mandate to reduce costs, it may be difficult to build a business case for RPA. However, it may only be a matter of time before this technology becomes mainstream in treasury and finance, as more organizations begin to understand its value.

In the second part of this guide, we'll explore artificial intelligence and machine learning and how they might reshape treasury and finance in the near future.

For more insights on RPA, machine learning and artificial intelligence, don't miss the **AFP 2019 session, Future of Treasury: The Uncut Version,** which is part of the **Treasury Management track,** as well as the **AFP Mindshift sessions, Deploying Machine Learning to Modernize the Revenue Forecast,** and **Now Playing: AI, ML and Finance in Real Life**.

ABOUT THE AUTHOR

Andrew Deichler is the multimedia content manager for the Association for Financial Professionals (AFP). He produces content for a number of media outlets, including AFP Exchange, Inside Treasury, and Treasury & Finance Week. Deichler regularly reports on a variety of complex topics, including payments fraud, emerging technologies and financial regulation.

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