Bots and Beyond: Infogain and Network and Datacenter Services Provider Partner to Automate Finance Function

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EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Infogain Delivers RPA Cost Savings and Productivity Gains for IT Services Client

This IDC Perspective showcases Infogain's global execution of robotic process automation (RPA) for an IT services client across 13 APAC countries. This includes uses cases of desktop automation, process automation, and considerations for cognitive automation and machine learning. This IDC Perspective provides details on the business challenges, scope or work, methodology, and implementation and indicates the cost savings and productivity gains achieved by task/process.

Key Takeaways

- As one of the key partners in this journey, Infogain supported its client across the automation value chain from assessment and benefits analysis, pilot development, tool assessment and selection, design/testing/development, and the onboarding and training of internal users.

- Infogain was able to increase productivity, drive cost savings, and also meet the broader companywide goals of standardizing tasks/processes across multiple countries by using a reusable and reliable automation framework.

Recommended Actions

- **Ideate.** Come up with big business drivers early on, and prioritize potential use cases.
- **Road map.** Determine an operating model, a governance structure, and how to both measure and communicate benefits/success, addressing hard and soft metrics as well as IT and business stakeholders.
- **Pilot.** Determine appropriate tools, implement pilot bots, and validate hypotheses fast. On the technical side, actual RPA deployment is quick. Fail fast to help your enterprise quickly build out a pipeline of credible use cases.
- **Implementation.** Embrace agile to create quick wins and build business leaders' confidence.
- **Future state.** Build cases to automate the next tier of processes that are increasingly complex. Look beyond rule-engine-based bots.

Source: IDC, 2019

SITUATION OVERVIEW

Overview

Infogain is a global IT consulting provider of front-end, customer-facing technologies, processes, and applications, primarily working with Silicon Valley customers for the past 25 years leading them to more efficient and streamlined customer experiences. Infogain offers capabilities across the digital stack including next-gen application management, business intelligence/analytics, platform engineering, digital transformation, and automated business assurance. As part of its capabilities, the company offers the full gamut of RPA services (see Figure 2).

Infogain partnered with a global leader in the information and communication technology (ICT) industry whose focus is to accelerate its clients' ambitions through digital infrastructure, hybrid cloud, workspaces for tomorrow, and cybersecurity. This network and datacenter services provider has been moving into the shared services and platform business to cut costs and standardize – focusing on internal shared services for finance, procurement, and sales, to name a few. The finance function was leading this transformation and engaged with Infogain as an automation and digital transformation partner.

FIGURE 2

Infogain RPA Services

Source: Infogain, 2019

Business Challenge

The network and datacenter services provider engaged with Infogain almost three years ago when its financial unit was looking to transform and optimize several financial and operational processes. The challenges faced were twofold:

- Finance resources across the Asia/Pacific (APAC) region were unable to optimize their time beyond deploying basic automation in Excel and were spending too much time doing repetitive, manual, and mundane tasks.

- In Hong Kong and South Korea, local teams required resources with greater financial expertise as they worked to maintain a high volume of monthly and quarterly closure activities.

The network and datacenter services provider embarked on a consolidation and standardization of tasks and business processes across 13 Asia/Pacific countries. It did not want to just add head count but also leverage Infogain's RPA capabilities, process expertise, and digital transformation expertise to improve efficiencies and enhance productivity.

Scope of Work

Infogain first reviewed the existing RPA road map and assessed the company's current RPA tool pinpointing the benefits, challenges, and incompatibility with SAP ERP. Infogain then built a framework to identify the right processes for automation.

As a phased approach, in Phase I, Infogain and its client first identified processes that were quick and easy to automate and easily repeatable with standard inputs and outputs with little variations or exceptions in. For example, tasks that involve primarily opening emails, downloading documents, consolidating data, simply accepting or rejecting requests, and so forth were identified as good candidates. These quick wins helped build confidence in automation, proving to business unit leaders that robotics was an effective means to streamline repetitive tasks.

Following this, Phase II looked at medium-complexity, high-volume processes like invoicing, which has great variations across countries and may require extensive coding. Infogain and its client are actively (but selectively) pursuing more complex but high-impact functions in finance and sales operations. These projects are riskier but can potentially deliver bigger savings. Infogain is also looking to explore more "intelligent bots" or bots that can actually "self-learn" and handle more high-level processes without human interventions at all. Potential use cases will leverage natural language processing (NLP) and machine learning (classification).

To start the global implementation of RPA, the network and datacenter services provider identified process owners to kick-start conversations and relationships with global stakeholders, who would then work together to identify, map, and automate processes by country. Workshops were conducted within each country to align the RPA vision and objectives, define the desired "as is" and "to be" states, discuss process optimization, and determine how to structure the processes with the necessary tools and bots. Most important was defining a standardized means of working and being able to replicate and scale across 13 countries, in addition to gaining stakeholder alignment and buy-in across countries.

Methodology: Ideation to Realization

The RPA initiative was primarily taken up within the client's APAC operational headquarters in Singapore. Although there were likely candidate processes already in the pipeline, there was a need for a central governance and methodology to process the pipeline before a process could be taken up for automation. Selection of appropriate automation tools and platforms was key in ensuring the success of RPA at the enterprise level.

As depicted in Figure 3, the network and datacenter services provider used a methodology to evaluate automation tools and to pinpoint the role of management and business owners throughout the assessment stage, from determining requirements through the proof-of-concept (POC) stage. The evaluation model helped not only to map feature requirements with tool capabilities but also to identify

opportunities within finance and logistics for potential automation. Ultimately, more than one tool was selected based upon the business needs and defined automation road map.

FIGURE 3

Automation Evaluation Methodology
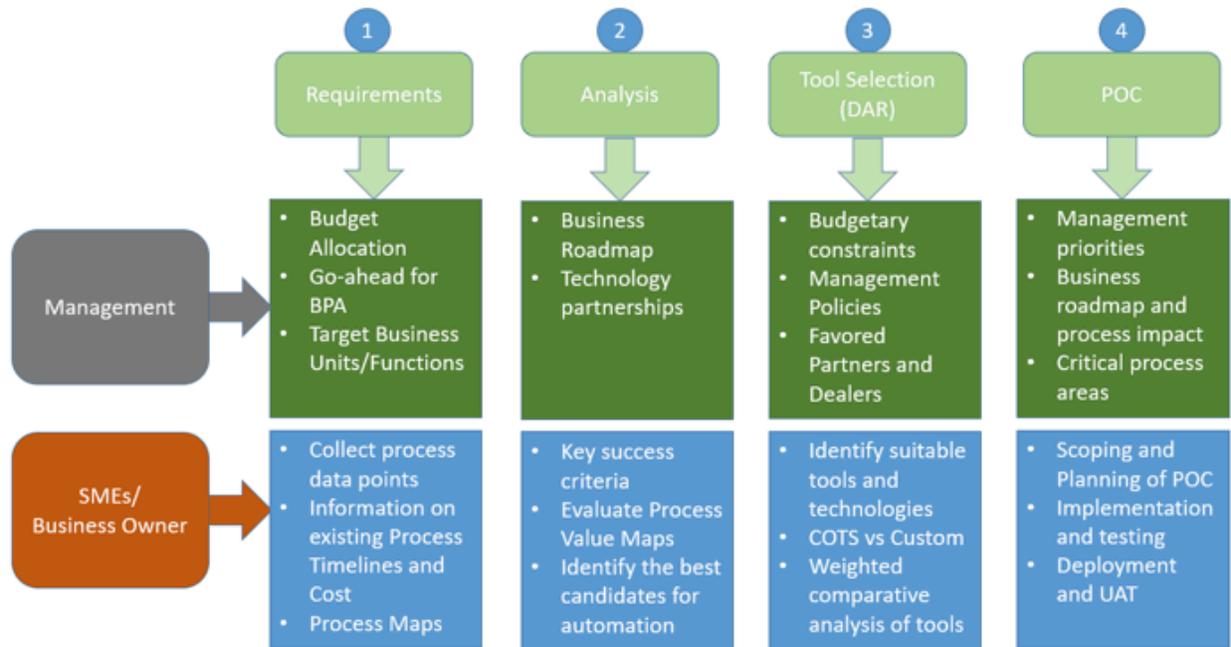
Source: Infogain, 2019

Multiple processes were selected for the initial proof-of-concept phase. As part of the POC implementation cycle, Infogain's base RPA framework was customized to suit the target business and technical process architecture.. As a result, the initial benefits could be realized within a couple of months.

The implementation cycle was defined to embrace Agile methodology, which made sense for prevailing conditions in which RPA was initiated and onboarded. The following factors contributed to leveraging the Agile methodology:

- Limited but frequent business user communication cycles were available throughout each month.
- RPA being new, there were ample chances of process improvements.
- Seeing was believing for those that were new to RPA, and hence multiple iterations with feedback were imperative.
- Phased rollouts with incremental automated steps within a process were perfectly acceptable.

The POC phase helped understand certain key parameters and attributes of the underlying infrastructure platform, which was Citrix Virtual Desktop Infrastructure (VDI). Based upon the experiences of the POC and the kind of applications outlined as part of the automation road map,

Infogain along with the client's IT team upgraded the infrastructure to Windows Enterprise-based virtual machines to be used as automation runtimes. This helped increase the efficiency in deploying additional bots and maintaining the infrastructure with a minimal IT bandwidth. After processes were developed, they were proliferated to other APAC countries on a quarterly basis as shown in Figure 4.

FIGURE 4

Number of Processes to be Automated Daily
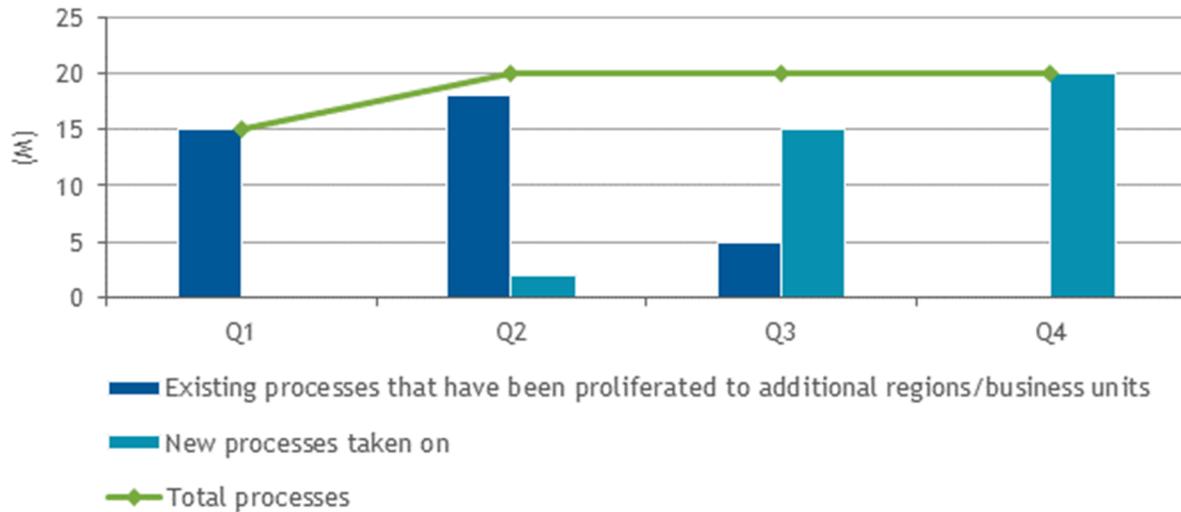
Source: Infogain, 2018

Use Cases

Bank Reconciliation Using SAP Cashbook

As part of the initial proof of concept, the bank reconciliation process using SAP Cashbook was considered. The bank reconciliation process starts with downloading a bank statement, followed by matching records with those in SAP Cashbook entries and reconciling the differences before submitting for approval. Part of the process, such as downloading forms and verifying formats, is relatively manual and repetitive, which bots can easily handle. But matching transactions and analyzing discrepancies do require human analysis (causes for reconciliation) in which case Infogain worked with its client to flesh out extensive and complex business rules. Infogain put 126 bots in place across 13 APAC countries to replace all human steps between downloading the bank statement and final email submission, paring down the total cycle time from approximately one workday to no more than two hours. More than half of the bots have been signed off today, after being tested and approved by each country. Automating bank reconciliations has freed up time and improved reconciliations reporting, which is crucial to have in time for the client's internal review meetings.

Goods Receipt/Invoice Receipt Aging by Vendor and Date

This monthly process is made up of matching goods receipts against vendors' invoice receipts to ensure a timely update of account payables by creating a summarized report for pending invoices by vendor and date. Previously, the task was done manually by combining goods receipt/invoice receipt

(GRIR) reports with vendor master reports to produce one overall report outlining pending invoices by vendor and purchase order date.

As depicted in Figure 5, the automated process involved deploying one bot to download a vendor master list from SAP and consolidate the data available in the GRIR report by vendor and date. It also provided an aging report for pending invoices, which is essential for accounts payable controlling and tracking. Prior to the RPA implementation, this process took half a day, and post implementation, it now takes 15 minutes to execute.
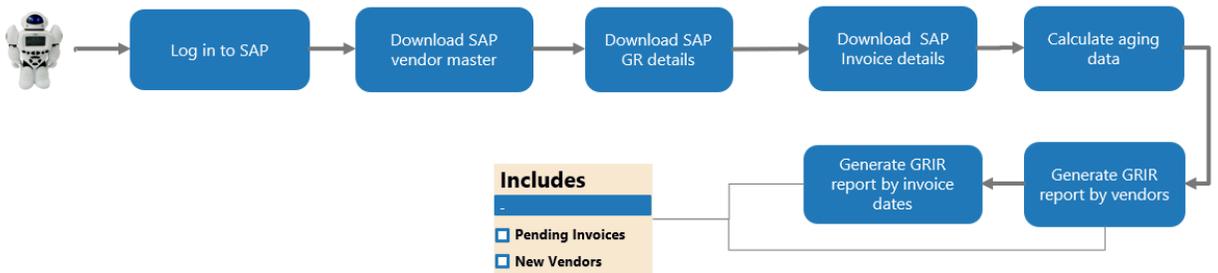
FIGURE 5

### GRIR Reporting: As-Is and To-Be States
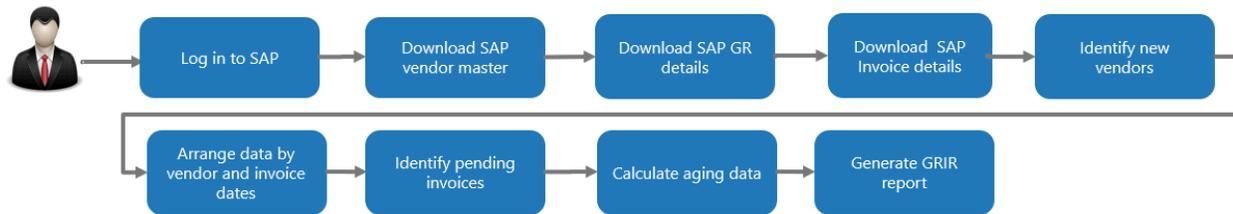
Source: Infogain, 2019

Revenue Cost Profitability

This process extracts data for cost and revenue line items from SAP and aggregates the data to produce reports on costs and expenses at the sales order, business unit, and sub-business unit levels. Manually, this process involved downloading multiple custom reports from SAP, organizing and cleaning the data based upon certain rules, and then rearranging the data at every sales order line level (see Figure 6). Although this was a complex process for automation, the reusable base framework was used to build the entire automation process within a few weeks.

FIGURE 6

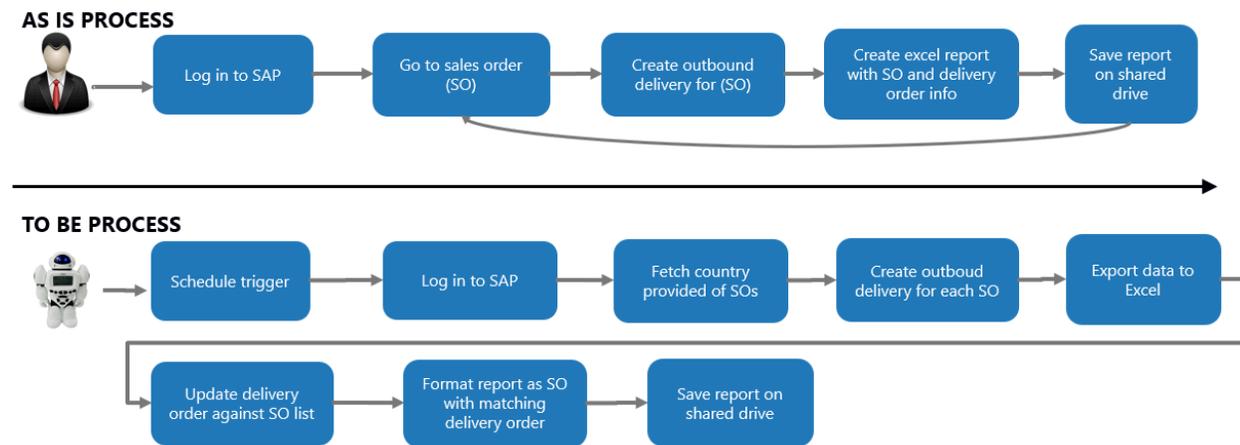**Revenue Cost Profitability Process: As-Is and To-Be States**
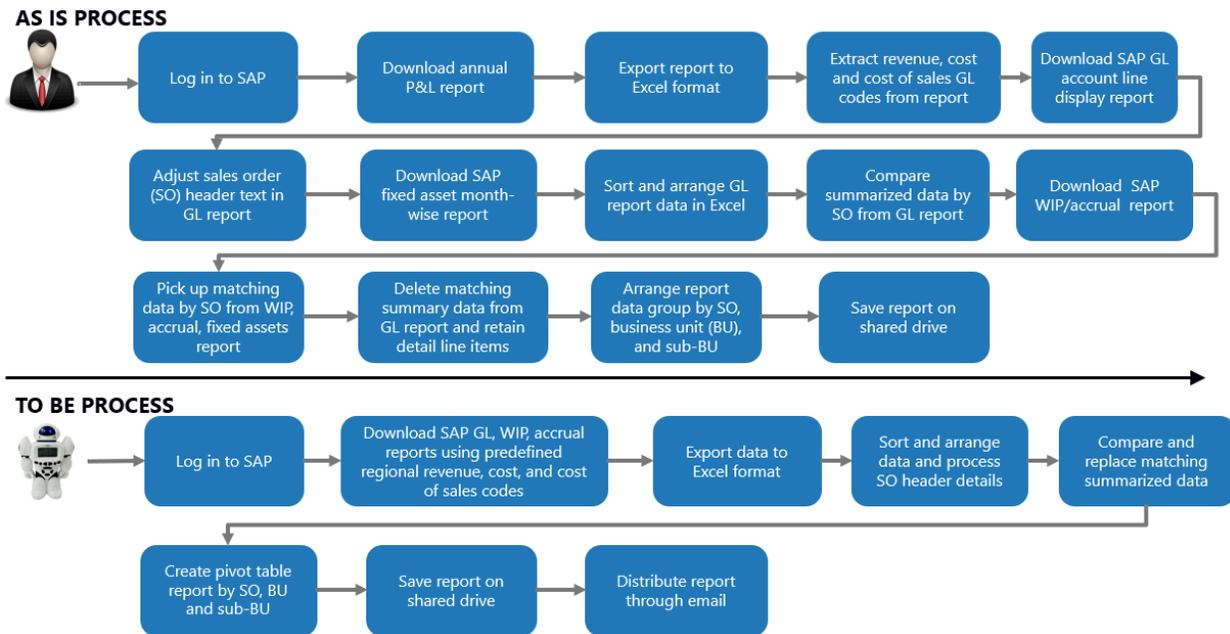
Source: Infogain, 2019

Post Goods Issued Reporting

Post goods issued reporting was initiated to perform post goods issued (PGI) before recognizing revenue on an SAP sales order. This was part of the revenue recognition process for a few APAC countries. Infogain's RPA architects helped build a pluggable base framework for the end-to-end process such that the PGI process could be deployed as an add-on to the revenue recognition process. As shown in Figure 7, the automated process consists of updating delivery orders in SAP based on given sales orders and exporting the delivery order to merge with given sales order list, which increased efficiencies and reduced human error.

FIGURE 7

Post Goods-Issued Reporting: As-Is and To-Be States

AS IS PROCESS

Log in to SAP → Go to sales order (SO) → Create outbound delivery for (SO) → Create excel report with SO and delivery order info → Save report on shared drive

TO BE PROCESS

Schedule trigger → Log in to SAP → Fetch country provided of SOs → Create outboud delivery for each SO → Export data to Excel

Update delivery order against SO list → Format report as SO with matching delivery order → Save report on shared drive
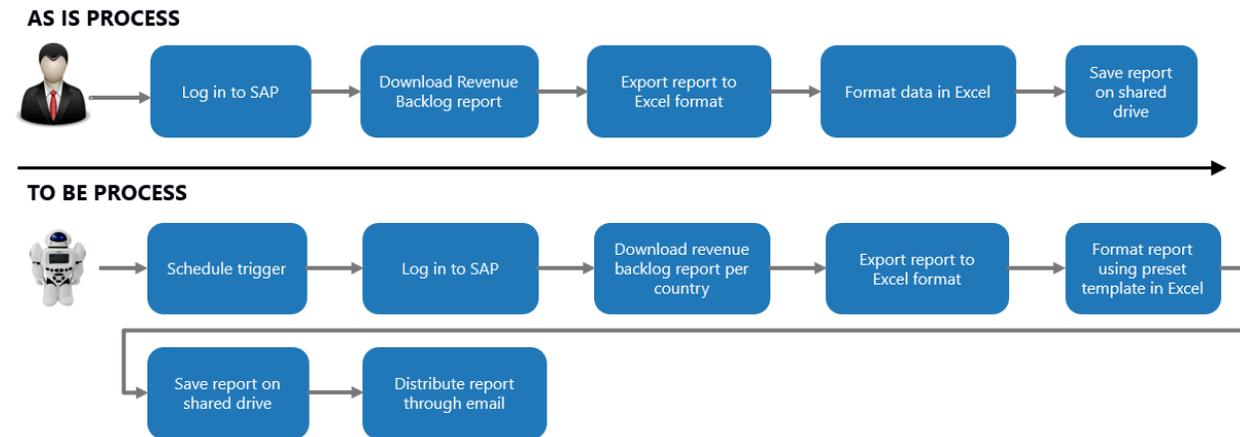
Source: Infogain, 2019

Revenue Backlog Scheduling

The business team had to perform a daily download of backlog reports from SAP, requiring them to filter through multiple reports, taking more than a couple of hours for certain APAC countries, especially toward the end of each fiscal month. This took away from business users' time to perform data analysis and strategic planning prior to the review meetings with senior management. The entire task was automated and deployed to be scheduled and executed in an unattended mode. The downloaded report was being pushed to the business user through email. In cases, where the report exceeded a threshold size, the email was sent out with a link to the central saved version of the report.

The automated process enabled automated log-in to SAP and would select report(s) to download and provide options to schedule the download and where to save the downloaded file (see Figure 8). Automated and scheduled report downloads let businesses have immediate and daily access to relevant data.

FIGURE 8

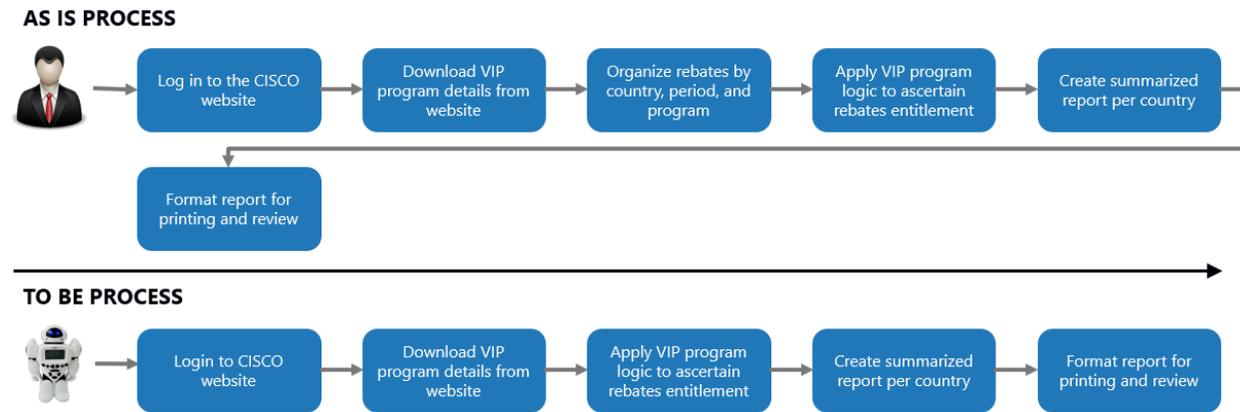## Revenue Backlog Scheduling: As-Is and To-Be States

Source: Infogain, 2019

VIP Rebates

As part of the Cisco Value Incentive Program (VIP), Infogain's client headquarters (Singapore) had to maintain and distribute estimated rebates for all APAC countries. The task in this process was to consolidate VIP rebates estimation by individual order monthly, giving an estimate of rebate achievements to each country for accounting accrual. One of the challenges was to handle complex business rules changing for every VIP program on a quarterly basis.

Infogain's team of experts helped automate data downloads from Cisco's website, applying VIP program rules and calculating the total rebate versus shipped products. This was deployed as an on-demand process for the business user and was executed toward the end of a given value incentive program (see Figure 9). After the success of automating VIP rebate estimations, Infogain further identified processes to automate for the next fiscal year including uploading vendor invoices, demand forecasting, vendor reconciliation, and P&L and balance sheet review.

FIGURE 9

VIP Rebates: As-Is and To-Be States

AS IS PROCESS

Log in to the CISCO website → Download VIP program details from website → Organize rebates by country, period, and program → Apply VIP program logic to ascertain rebates entitlement → Create summarized report per country → Format report for printing and review

TO BE PROCESS

Login to CISCO website → Download VIP program details from website → Apply VIP program logic to ascertain rebates entitlement → Create summarized report per country → Format report for printing and review

Source: Infogain, 2019

Training and User Onboarding: Do-It-Yourself Strategy

Unlike a typical IT project, Infogain's client wanted to use the capability of RPA to empower business users to be self-reliant in the creation of their own automation bots for small, frequent, and routine activities such as downloading data from websites or uploading documents to FTP.

Infogain worked with the network and datacenter services provider to arrange workshops and training programs involving country CFOs and business process owners along with key business users. Each program was targeted to not only provide a basic overview of the RPA tools being used but also make the participants comfortable in using the tools themselves in their own dedicated sandbox environment.

Through the programs, business users became more confident about the power of automation and their own capability in leveraging it and creating their own automations/bots themselves. Infogain's RPA experts only helped in fine-tuning deployments wherever needed.

The deployment strategy for most of the daily/weekly/monthly processes was to use unattended robots running remotely on dedicated virtual machines. This was crucial to business teams since they could realize the benefit of scheduled and unattended automations without any or minimal intervention from their side. A good example was the revenue posting process that was executed in unattended mode every hour, from 8:00 a.m. to 8:00 p.m., every working day. More than 20 automated processes (each deployed for around 12 out of the 13 countries) were deployed for APAC to run in unattended and scheduled mode. There were another 8 processes deployed to run in on-demand mode or based upon an event trigger such as robots receiving incoming emails.

Outcomes

Infogain was able to not only increase productivity and drive cost savings but also meet the broader companywide goals of standardizing tasks and processes across multiple countries by using a reusable and reliable automation framework. For a summarization of value delivered by process, see

Table 1. Infogain's evaluation of RPA tools also led to minimal licensing costs, helping the network and datacenter services provider reap more benefits year over year.

For the network and datacenter services provider, some change management has been required post implementation as the company seeks new talent like program managers to spearhead its center of excellence and business analysts to evaluate processes and conduct detailed solution designs and resources for development, testing, and managing loads. Broad guidelines were also established to help with the reskilling and upskilling of internal talents.

TABLE 1

Potential Savings and Productivity Benefits

Process Automated	Bots Deployed	Time to Execute Implementation of RPA	Pre-Implementation (Average Time Required to Execute Process)	Post-Implementation (Average Time Required to Execute Process)	Yearly Hour Savings (Across 13 Countries)	Annualized Savings ($)
Bank reconciliations	12	10 minutes	1 workday	2 hours	140 hours	25,200
GRIR	1	5 minutes	0.5 workday	15 minutes	40 hours	30,240
Revenue cost profitability	4	10 minutes (unattended for certain countries)	1 workday	2 hours	450 hours	27,000
Revenue recognition (post goods issued reporting)	2	10 minutes (unattended for certain countries)	1 workday (varies by country)	30 minutes to 2 hours (varies by country)	170 hours	25,200
VIP rebates	1	10 minutes	1 workday	15 minutes	500 hours	3,000
Standard reporting	25	0 (unattended)	30 minutes	5-7 minutes	420 hours	96,400

Source: Infogain, 2019

Next Wave: Cognitive Automation

The second wave of automation looks at embedding more cognitive elements and the onboarding of smart automation techniques to extend the basic functional automation. This phase of automation will look at the complex situations: for example, invoice processing where the bot can learn/understand without human intervention. And while the expectation is not 100% savings, it's more gradual by achieving 20% savings, then 30-40% savings over time.

The bank reconciliation and revenue recognition processes required capturing information from PDF documents (unstructured data format) – that is, transaction references from bank statements and sales

order references to link back to the sales orders. These tasks were intentionally kept out of scope initially because standard desktop automation techniques could not handle these tasks out of the box.

Cognitive automation was used for the bank reconciliation process to extract transactional data from bank statements in PDF. This also involved certain linguistic support for Korean bank statements. For revenue recognition, cognitive automation was used to extract the relevant sales order fields needed to evaluate the business rules for accounting. When both use cases were deployed across all APAC countries, it was expected to automate around 30% of additional manual efforts.

Since anomaly finding was also important for both business processes, it was naturally planned to adopt machine learning techniques to help analyze historical data and raise alerts. This was planned to be onboarded after six months to one year of historical data was generated and captured in production through the robots. The following use case scenarios were earmarked as early adopters for using advanced machine learning techniques:

- **Bank reconciliation:** Historical data fed through machine learning algorithms can help address and identify sudden surges in cases of unrealized checks or unaccounted cash transactions for certain financial periods.
- **Revenue recognition:** Instances of high volumes of adjustment records or unusually large blocked sales order entries could be an interesting case for further analysis and understanding if any corrective steps need to be taken.

ADVICE FOR THE TECHNOLOGY BUYER

With today's tools at our disposal, "automate all that boring stuff" may sound fast and easy, but implementing it in real-world enterprises takes more — a lot more finesse and preparation. More importantly, real success is more than just one successful pilot/deployment/project. It is about continuous automation.

Those looking to implement RPA should consider partnering with services providers to execute on the following:

- **Strategize.** Come up with big business drivers early on (ask broad questions as to Why automation), make automation part of a larger process improvement discussion, prioritize (what to automate and what to automate first), map out a phased automation journey, and set clear outcome goals and milestones.
- **Road map.** Determine an operating model, governance structure, and how to both measure and communicate benefits/success (make sure to cover both hard and soft metrics and both IT and business stakeholders).
- **Pilot and proof of concept.** Determine appropriate tools, implement pilot bots, and validate hypotheses fast. On the technical side, actual RPA deployment is quick. A buyer should take advantage of this speed by experimenting first and letting unrealistic ones fail fast. This will help the team quickly build out a pipeline of credible use cases.
- **Implementation.** Embrace agile to create quick wins and build business leaders' confidence.
- **Knowledge transfer.** Assess business outcomes and benefit realization and the potential to scale automation companywide (across other business units); assess change management and required talent to maintain certain bots.
- **Future enhancements.** Build cases for the next tier of processes to automate that are increasingly complex. Organizations should also look beyond rule engine-based bots. While

scalable use cases of embedding machine learning and natural language processing in back-office automation remain elusive and highly "narrow" and function specific, eventually AI can help build bots with more "intelligence" to handle more complex processes. By exploring this capability now, an organization can get itself "AI ready" from a data-requirement perspective, as well as having internal talents who can pick out credible feasible use cases among the hype.

▪ **Build an RPA center of excellence.** With the right knowledge transfer, some internal employees (IT or business) should be technically savvy enough to design and pilot new bots; an enterprise should complement its training with skill in change management, process design, and communications.

LEARN MORE

Related Research

▪ *Business Analytics Services: Five Best Practices for Maximizing Success* (IDC #US43553317, February 2018)

▪ *The Strategic Role of Services in Realizing Business Value with Robotic Process Automation* (IDC #US43169117, November 2017)

▪ *IDC F&A and Procurement BPO Buyer Survey: Impact of Automation on Workforce* (IDC #US41968717, June 2017)

▪ *IDC MarketScape: Worldwide Finance and Accounting BPO Services 2017 Vendor Assessment* (IDC #US41237717, June 2017)

Synopsis

This IDC Perspective discusses the partnership between Infogain and its client, a network and datacenter services provider, to implement RPA across multiple tasks and processes across several Asia/Pacific countries.

"The partnership between Infogain and its client shows how RPA can be rolled out and scaled throughout a global enterprise through leveraging a phased approach to automation, from ideation to implementation to post-implementation change management," says Alison Close, research manager, Finance and Accounting, Supply Chain, and Analytics BPO Services.

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