UiPath

Know your RPA ROI

Business cases are useless unless you use them

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Former Secretary of Defense Donald Rumsfeld responded to a reporter's question in 2002 famously explaining,

There are known knowns, things we know that we know; and there are known unknowns, things that we know we don't know. But there are also unknown unknowns, things we do not know we don't know.

Public Sector leaders are often heard telling their employees "we must be good stewards of taxpayer money." They are also often heard asking: "how are we going to take on new mandates without additional staff or funds?" This paper assists public sector decision-makers in addressing both these concerns as they make the business case for Robotic Process Automation (RPA). RPA can clear backlog, create capacity and improve data quality by integrating virtual employees into public sector workflows, but only after agency leaders are shown the hard and soft cost opportunities of RPA. This guide helps RPA project managers develop a data-driven business case necessary to gain senior leader buy-in and to validate their program's ROI both at the decision-point and during future analyses of project success.

Positive ROI in government means tax money is being better utilized.

Introduction

Industry experts and the media are all a twitter (pun intended) about Robotic Process Automation (RPA), also known as Intelligent Automation. Vendors and consultants are educating customers on 94- percent increases in speed, save thousands to millions of dollars, reach 99.9-percent improvements in their error rates, triple their capacity and largely eliminate their backlog. And since the first anniversary of the first RPA robot implementation at NASA's Shared Services Center in May 2017, testimonials from a growing number of U.S. federal and international public sector agencies are beginning to appear.

At the Association of Government Auditors (AGA) conference in Orlando in July 2018, the NASA Shared Services Center reported $400K in savings from their RPA in less than a year. Positive ROI in government means tax money is being better utilized. Other agencies, using UiPath, have realized a positive ROI during their proof-of-concept (POC) and/or pilot phases.

At the same AGA conference, panelists from the National Science Foundation, Government Services Administration and the Treasury suggested business cases were not necessarily part of their decision to automate with RPA. Instead, they started with a small project that would allow them to learn and then launch smartly. For these first projects, they found motivated and knowledge- able process owners within the organizations who were willing to navigate the new technology. They also found the success of their POC or pilot created significant demand for more automation by their leadership and workforce. This agile and flexible approach is working for pathfinder agencies, but it does not mean a business case is not needed. To ensure you are using taxpayer funds wisely, RPA project managers need a well-developed and sustainable business case. Just as Donald Rumsfeld, then Secretary of Defense once introduced the idea of, "knowns, unknowns, known unknowns and unknown unknowns," RPA project managers should consider these same variables to develop an iron-clad business case for agency leadership.

When every citizen is your potential customer, your business model is not just financial, it is also about service results. Saving money may not even be a major consideration.

Return On Investment is More Than Money

ROI is typically expressed in dollars. But Public Sector ROI is unique.

When every citizen is your potential customer, your business model is not just financial, it is also about service results. Saving money may not even be a major consideration. While the private sector has customers and stockholders, the public sector is accountable to 350 million Americans. The story of Southwest CEO Herb Kelleher saying to a customer, "Dear Mrs. Crabapple, We will miss you. Love, Herb." when her complaints were counter to the company's values is legendary.

When you have a successful business, and someone expects too much, you may just have to take the loss for the good of all. Not so for government agencies. Today, social media provides each citizen with a megaphone from which to demand satisfaction. Government must serve the many while the private sector must only serve the profitable few. Government agencies must weigh other factors along with financial savings in calculating ROI.

Public Sector ROI is not just about money, it also includes:

- Faster throughput
- On-demand services
- Increased capacity
- Reduced backlog
- Better security
- PII breach reduction
- Reductions in re-work
- All but eliminating errors
- Residual benefits

These variables, working in tandem where appropriate, create the conditions for an agency to improve service vertically and horizontally across an agency.

RPA stands to save you far more than you spend but resist the temptation to exaggerate.

Strategies for Building the Business Case for RPA

Regardless of how much effort you put into your business case, be prepared for criticism. Take the time to uncover every possible cost and assumption and apply values to them. At the same time you are being conservative in your cost and assumptions, also conservatively estimate your benefits.

RPA stands to save you far more than you spend but resist the temptation to exaggerate. Predict your benefits and factor them back into your plan. If you build in all your categories, those criticizing your plan will be taking issue with how you arrived at your values, not the worthiness of the business case. These "what if" challenges can easily be tackled on the spot and to build confidence in your plan.

Prepare your Business Case to be used now and in the future. Ensure the business case will be convincing and compelling 18 months from now even if new leadership arrives to challenge whether the Return on Effort (ROE) was worth implementing an RPA program. ROE is all the painstaking change management, including market research, vendor negotiations, communicating to the workforce and stakeholder disagreements that all needed to be considered when the agency took its robotic leap of faith. This due diligence helps reduce the likelihood future leaders will use their gut feelings about the RPA program instead of making data-centric assessments.

Your business case will be supported by "as is" and "in-production" process design documents, project plans, and the methodology for collecting, analyzing and visualizing the baseline dataset. While new stakeholders might question ROI pronouncements, unless you have properly maintained the project's documentation you will not be able to determine the true ROI of your RPA project. Like any effort to predict, the more variables you know and the shorter the timeline, the more accurate you can be. As timeline lengthens and variables are less certain so is your prediction; make your best estimate.

Let's look at the variables and apply linear timelines to them to begin building the ROI worksheet.

KNOWNS

You know 100 percent about last year's IT costs and IT environment. Depending on your current provider, you may have exact costs for the next few years. Predicting the future when you know the future is easy. It is critically important to ensure you collect data on all knowns, some of which you may have ignored until now. Such as:

1. **Uptime:** There are 525,600 minutes in a year. Vendors will tout robots as working 24/7 with no smoke breaks or vacations. Ask the CIO to provide the number of minutes of unexpected or unplanned outages (smoke breaks) and planned outages (vacations). The business case will more accurately predict how much processing time your robots might actually operate. The more minutes they are working the more positive your ROI. Plan for 75 percent of the year. While your ROI might seem less favorable this is just a plan. If you achieve 92 percent your ROI is better.

2. **Staffing:** As your staff increases your ROI decreases. Yet if you are understaffed you will not be able to meet demand, cannot manage your robots and risk your project failing. Leadership will tend to want to keep your staff to a bone-cutting minimum. You need to be prepared to defend a team of 3 or 4.

   a. **Robot developer:** You will need development staff to build the robot. Initially, only one is needed, but our experience shows that immediately after the first successful UiPath deployment, demand for RPA rises. You will not be able to grow and manage your virtual workforce with only one developer. Using UiPath Academy for free developer training will allow you to organically train more robots (see Chart A below). More developers results in additional robots, improving the ROI and allowing for a better mixture of complex and less complex automations. Consider using systems integrators to get you started on your RPA journey but also train your staff on Academy for the long-term health of the project. Although systems integrators add costs, they bring extensive knowledge and experience that can improve the critical initial period of your new project. Factor in a reasonable transition schedule where you "reskill to retain staff" to realize cost reductions as you take on more and more of your operations. Consider a staff of 3 to 4 (systems integrator, government contractor, or a combination) to start and set milestones for increasing staff based on success not on time. When calculating the developer salary ensure you use the fully burden rate provided by your budget analyst. It is a higher value, but it is also a more accurate number. Also include all costs (i.e. retirement, cube space, etc.) per person.

b. **Additional staff:** In addition to a robot developer you will need a business analyst, a program evangelist, a robot manager and a project manager. While initially multiple roles could be assigned to a few individuals, your 3-to-5 year ROI plan should consider what triggers increasing the staff and what combinations of systems integrator, government, and contractors will best support your program's success. Again, not all are needed on day one but as your successes multiply, you will need more rather than less. During the first year, you have the option to double up the business analysts with the project manager role and the robot manager could be the 3rd robot developer. Initially, a Project Manager/Evangelist and a Robot Manager/Business analyst will meet your needs. Let's add these to our current ROI calculation and see the impact. By now, you should appreciate your actual new costs are just for the RPA software. Repurposing existing staff should be reflected in the business case and calculated in the ROI but it is not new cost.

c. **"T-shirt" sizing.** The sizing chart demonstrates the time needed to build robots. You have to start somewhere but as time goes on you will refine the time values based on the quality and size of your bot developers. Using this calculator initially and refining as you go will ensure that even while your demands initially increase, you can defend to leadership why you can or cannot keep up with the demand.

Chart A

Petite	Small	Medium	Large	To Large
1 Week	3 Weeks	6 Weeks	12 Weeks	18+
Only do if part of a larger E2E project	Nice independent module that can immediately add value			Too big, too long and worthy of giving to the CIO or breaking into a medium and large project so you get something into production sooner rather than later.
52 – 3 vacation – 3 work related other – 46	52 – 6 / 3 = ~15	52 – 6 / 6= ~8.5	52 – 6 / 12 = ~4	52 – 6 / 18 = ~2.5

3. **Hardware:** RPA software is relatively inexpensive. Additionally, UiPath's ability to adapt to your current IT architecture and infrastructure means you will not have a large infrastructure outlay.

   a. **UiPath's attended robots** are loaded on and integrated as "personal interns" so there is no additional hardware cost.
   b. **UiPath's unattended robots** will want to be in a virtual seat (laptops are more expensive than virtual seats).
   c. **UiPath's Studio** will usually load on a bot trainer or developer's laptop not requiring a new computer.
   d. **Orchestrator** will require a server. Additionally, you may want to load the SQL server and data visualization server on their own platforms.

4. **Software:** Robot software is inexpensive. You can check it for yourself here. Once you get the Studio, Orchestrator and Robot approved and operational, the incremental cost of robots is inexpensive compared to the ROI it will generate. The business case will need to reflect addition robots over the next three to five years. Assume you will use from 50 to 200 robots. Private industry successes show once operational RPA projects are growing exponentially, your virtual workforce can grow just as rapidly.

5. **Software licenses:** While an attended robot will use the licenses of the computer it resides on, each unattended robot will require an OS license and any other seat licenses a person must have such as Google Docs, MS Project, Visio, SAP, etc. If a person needs a license so does your robot. Therefore, once you get started, you will see your license costs go up the same way you would if you added 4 new licenses for your team. Do not be weary of this increase. As your staff move to high-valued work you may find they no longer need certain licenses.

6. **Process time (current and projected):** A variable you will need to determine is the time to complete a process. Understanding the current time to do one process and later determining how long a bot takes to complete the process is central to your ability to predict backlog reduction, calculate new capacity or speak to customer wait time improvements. Appreciate this number is not easy to get. When you ask the process owner how long it takes for their staff to complete one cycle of the process they likely will say "it depends." Of course, they are right. You are not looking for an exact number, but instead one that everyone agrees on. It is important not to pick the fastest time nor the slowest time and to agree on how the average time was determined. It is equally as important not to overestimate the speed that the bot will work. You will know once you have run the bot 100 times but until then it is your estimate. Just as you should not pick your slowest or fastest worker's time, do not assume the bot will do it in an unreasonably short time. Because the bot is mimicking humans, variables such as network congestion, system logon latency and the time applications need to open will all be con-straints on your virtual employee. Consider using a range and show your ROI in two or three scenarios where your process time is reduced by 50, 75 and 90 percent.

7. **Data accuracy (current and projected):**
   a. **Contract costs:** Ensure you know from your Procurement Officer the average cost of managing a contract. Including this known variable will suggest you have turned over every stone.
   b. **Reserves:** So far we have tried to identify every known variable. Assume you are going to be off. Failing to put in a sizeable reserve indicates you do not appreciate that 33 percent of all government IT projects struggle or fail. Your business case is a plan and a budget. If you utilize lessons learned, if your staff works proactively for success and you have the right processes in place, you will not need this reserve and your ROI will be higher. No one will complain if you deliver what you committed to at a lower cost to the agency. The opposite is never true.

UNKNOWNS

Unknowns are classified in the business plan as your assumptions. Clearly stating your assumptions and having them feed your ROI allows the Center of Excellence to update and account for these assumptions well after your first robot starts. If prices, policy or technology changes are accounted for in your assumptions with a reasonable amount of confidence, you can formally update your values later. The goal of your business case should be to identify every possible cost and estimate it as accurately as possible, so future reviewers will not be able to question the validity of the baseline.

   a. What will inflation do?
   b. Will you change contracts and therefore will your labor rates change?
   c. Will technology cost from the CIO remain, drop, rise or be flat your first few years?
   d. Will leadership's endorsement of change falter?

KNOWN UNKNOWNS

Our known unknowns are your risk. Do not be afraid of risk. A known unknown that will weigh against your RPA business case over the next three to five years is Artificial Intelligence (AI). Although AI is expensive, complicated and new to the public sector, it is being included in policy making conversations across government. As with all technology it will get cheaper and become less complicated. UiPath anticipates AI will be upon us sooner rather than later. Those that have begun their journey into AI using UiPath RPA will see their ROI remain strong. Using their investments agencies will see UiPath as the catalyst for action in their workflows tasking cognitive robots, moving blockchain information, and responding to task assigned by AI systems. Your virtual employees will add more data in and around your ecosystem to create the information needed by human decision makers to more appropriately perform their work. UiPath's diverse and virtual ecosystem is already maturing to ensure your UiPath investment today is an investment in your future.

UNKNOWN UNKNOWNS

No discussion around RPA would be complete without the big unknown unknowns question, the elephant in the room: "will RPA take my job?" We do not know what the impact of RPA is going to have on your job any more than the Wright Brothers knew their efforts would eventually lead to the airline industry and space flight. So, the actual question to ask is: "will I allow the fear of whether RPA will take jobs cause citizens who are already using Uber, Spotify and an IoT refrigerator to wait, yet again, accept the bureaucracy telling them on-demand services will come later?" While we do not know what we do not know, we know one thing: your job will change. With the August 27th, 2018 release of the Office of Management and Budget memorandum (M-18-23) it is your call to action.

In their study, "The Future of Skills Employment 2030, Bakhshi, Downing, Osborne and Schneider concluded "… education, healthcare, and wider public sector occupations are likely to grow." Do not let this unknown unknowns be a deterrence against RPA becoming mainstream. Consider it now to resolve your challenges, plan for it to have a neutral impact on the immediate and near-term workforce but plan to address the impact once you have started your program. Start hiring lifelong learners who are naturally outgoing, comfortable with change and self-motivated.
According to a recent study, lifelong learners are the future partners of your current RPA workforce. UiPath's open culture of offering free, on-demand training and certificates enables lifelong, self-motivated learners to make themselves more valuable to their organization.
Engage your human resources team to:

- Evaluate your business SMEs to see if they are ready to take on UiPath's Academy to become robot trainers.
- Evaluate retiring employees' work. Leave the routine and chores to the robots and give back strategy work to your employees.
- Appreciate the natural ebb and flow of employee leaving can be an opportunity to create new positions and right-size your human and bot workforce.

This topic scares some but transparency and accuracy now will pay you big dividends later with your stakeholders.

REPORTING

A business case is often created, briefed and shelved. Many months after "go-live" the RPA Project Manager (PM) is going to be asked to describe the ROI for the project. A reporting plan ensures the PM does not spend needless hours collecting data and preparing an updated business case. Be pro-active and create a reporting plan that leverages the business plan. Incorporate reporting into your daily operations using the robots themselves to report on key hard and soft costs:
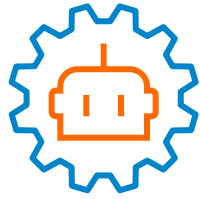
- Faster throughput
- On-demand services
- Increased capacity
- Reduced backlog
- Better security
- PII breach reduction

- Reductions in re-work
- All but eliminating errors
- Residual benefits
- Cost avoidance
- Cost savings

Ensure your developers build reporting into the fabric of the process by tracking performance and exceptions. You can celebrate your hard work daily if you integrate reporting into execution of the process. Constant reporting ensures no one will question your statistics and at the same time these details are an accurate first evaluation of whether you are succeeding. Building a defensible ROI takes time but does not have to be hard. When you created your business case you determined the data you need, found the data's authoritative source, collected the data and developed formulas. Carry this same data analysis forward when your bot is in production. You will constantly be able to compare your business case baseline with year to date bot performance.

The optimist (you, vendors, integrators and analysts) will tell the pessimist (lines of business leads, management and leadership) that RPA is the technology that finally fulfills the need for more agility, lower cost, faster automation in production, ease of use and other numerous efficiencies. Your ability to report on your progress using the agreed upon methodology that is transparently presented will go a long way to building your brand.

Follow this guide:

1. **Use a robot to do all this work.** Do not fall in the trap of building a manual process to support your automation. "Drink your own Champagne" and this entire process will be accurate, auditable, and reliable.

2. **Answer the following:**
   a. **Who:** See number 1 above. If the robot is not doing 100 percent of the collection, analysis and reporting, you are probably collecting, analyzing, and reporting the wrong data.
   b. **What:** Collect, analyze, and create both a word and visual report that constantly address your business case. Specifically:
      i. Track by organization and process – when a specific organization comes to discuss their use of RPA you want to show them their processes, successes and failings.
      ii. Clearly show the expected number of transactions versus the performed transactions. This not only helps understand workload but if your peers reimburse you for transactions processes that can be automated, let them know when they will potentially have to pay more as their estimated volume is going to exceed their cap. Assuming a 12-month period, you can forecast quite well with your robots doing the work nightly and providing a report each morning indicating what processes are above or below their targets.
      iii. Capture and compare the previous average time to process one transaction with that of the robot to validate not only the process is faster but also show the cumulative hours saved by the process.
      iv. Track the exceptions – this informs your continuous service improvement program regarding whether time spent updating and enhancing is really needed or not.
   c. **When:** When do you want this report? Daily or posted on-demand. Whether robots are over- achieving, or under-performing, transparency has never been easier if you are using a robot. Update your report as often as you like, make this report (visually) available on a website and keep the working version available for all to read.
   d. **Where:** Appreciate whether the reports should be available on a public facing site or just widely available on your internal website. The same is true for the running work report. You may even have full reports for internal use and scaled back reports for the public's consumption.
   e. **Why:** RPA in your agency is only going to be successful if, over time, you will be able to prove the value to those who are impacted by it. If you show the ROI, you will see demand take off. Additionally, you will be capable of demonstrating why late adopters need to be incentivized to move their processes to RPA. When you have built a strong RPA program, leadership will take notice of backlog elimination, people collaborating more, SLAs being exceeded, correspondence expressing pleasure from your citizen customers or other agencies you support.

UiPath's **downloadable, market-ready product**, combined with a **free online Academy** create a high reward and low risk opportunity to begin retraining and re-skilling the agency's workforce.

Conclusion

The first wave of path finders (NASA, GSA, DLA, Treasury, Postal Service, and the Army's DASA-FIM) have recently celebrated first-year anniversary of NASA's Shared Service Center (NSSC) deploying the first federal virtual employee. They are each employing virtual employees. As the second wave of federal agencies begin looking to the initial pathfinding agencies for confirmation that RPA lives up to its expectations, it is also time for both waves to improve their business cases and implement a reporting plan. While the ROI is certainly going to be impactful across the federal government, the low barrier to entry, ease of implementation and opportunity for free, on-demand training make our city, county, state and national governments lends itself nicely to an automation first mindset. Governments will find high ROI due to the nature of its highly trans-actional, repetitive and necessary work it just has to be willing to take this low risk opportunity to free its workforce from robotic work and let people get back to people work.

UiPath's downloadable, market-ready product, combined with a free online Academy create a high reward and low risk opportunity to begin retraining and re-skilling the agency's workforce. Taking the time during your Pilot to begin incorporating reporting collection, analysis and publication will only make your Center of Excellence ready for "go-live."

Private sector ROI numbers for cost, quality or data storage indicate the reward is high and the risk is low. RPA is not a hype - it is a solution. UiPath provides a flexible, adaptable, and ready to be democratized to for use across your agency. The hardest part of the ROI plan is to appreciate it has to stand the test of time. Not maintaining a strong ROI reporting plan that can be audited and provides well thought out calculations of authoritative data results in initial business plans being easily dismissed as incorrect or incomplete.

A strong business case, where knowns to unknowns are all considered, measured and shown holistically will be invaluable as you reshape your agency for the rapid onslaught of the next generation digital tools and liberate staff from robotic work.

We are here to provide you with more information, answer your questions, and create for you an effective automation experience.

GLOBAL HEADQUARTERS

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In Thomas Freidman's book "Thank You for Being Late" he suggests your job is going to be safe but changed. Friedman describes how the simple task of milking a cow is being automated. Cows will soon begin living self-service milking lives. Dairy farmers are incorporating RFI trackers, RFI readers, and scanners. Cows can roam the fields, pull in to have their underbellies scanned, suction applied, milk extracted, and stop at the trough to have food dispensed based on milk analysis by artificial intelligence. **"In the future," Friedman says, "a successful cow milker may need to be an astute data reader and analyst."**

Consider a hospital and its needs to organize and update patient records. Records arrive every day via snail mail, fax and in some cases in unique digital formats. The hospital would have a tremendous number of people processing these artifacts. It is logical to assume there is 5 percent filing error rate, and lots of time for staff to examine and file the records. In addition staff could unnecessarily review this sensitive and private data. Workers doing routine, repetitive and robotic work in shifts or only during a typical work day contribute to the loss of momentum to get the records filed rapidly, accurately and in a way they are present when a doctor needs the full medical record. Application of UiPath's RPA bot would begin digitially turnaround this hospital. Accuracy, speed, time processing, reduction in errors and redeployment of people from bot work to people work will contribute to a positive ROI. While the hospital may save dollars the improvements to the hospital and its patients will be priceless.