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Unlocking RPA's Potential in Government

Improving Service to the Citizen with Robotic Process Automation (RPA)

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Simply automating tasks that computers already routinely do could free up nearly 97 million federal government working hours every year. That could save \$3.3 billion — and those are conservative estimates.

— Francis Rose, Government Matters

Since a Robotic Process Automation (RPA) robot was first deployed at a federal agency in 2017, agencies using RPA have seen significant cost savings and efficiency gains — an early indicator of the unprecedented value it can bring to government overall.

These agencies have found an exceptionally high return on investment (ROI) for their projects due to RPA's ability to replace highly transactional and repetitive work with improvements in customer-facing services. In contrast to traditional IT or business

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By 2021, robotic automation technology will be doing the equivalent work of nearly 4.3 million humans worldwide.

— Forrester Research, 2018

process management solutions, RPA allows organizations to automate at a fraction of the time and cost. RPA is non-intrusive in nature and leverages the existing agency infrastructure without causing disruption to underlying systems. With RPA, cost efficiency and regulatory compliance are no longer operating costs, but a byproduct of the automation.

Government agencies now realize they can reduce processing costs by up to 80 percent. And within a year of adoption, most agencies can expect a positive ROI; further accumulative cost reductions can potentially reach 20 percent over time.

At the same time, RPA removes the burden of tedious, manual labor for human employees. This means government workers can shift their focus to more fulfilling, mission-critical work that benefits citizens.

Automating repetitive tasks benefits government agencies by improving their operations, helping them more easily meet compliance standards, reducing costs, and improving service to the citizen. Examples include:

- Lowering operating costs with zero error rate
- Enabling better customer service — for example, eliminating calls to contact centers about account or service errors
- Offering improvements in operational processes, such as better quality and improved turnaround times, increasing standardization, and leaving audit trails
- Eliminating the need for manual data entry and increasing order fulfillment rates, including increased speed, efficiency, and accuracy
- Ensuring business operations and processes comply with federal regulations and standards. With increased accuracy and elimination of most errors, compliance is virtually guaranteed.
- Decreasing contract invoicing and processing time, as these sorts of repetitive tasks can be fully automated
- Freeing employees to focus on higher-value work that directly benefits their mission





RPA tools are designed to mimic the same “manual” paths taken by a human by using a combination of user interface (UI) interaction or descriptor technologies. An RPA tool operates by mapping a process for the software “robot” to follow via computer pathways and various data repositories, so RPA can operate in place of a human. An RPA tool can be triggered manually or automatically, move or populate data between prescribed locations, document audit trails, conduct calculations, perform actions, and trigger downstream activities.

— **Robotic Process Automation: Eight Guidelines for Effective Results, Gartner, October 2016** ^[1]

Robotic Process Automation, Defined

Robotic Process Automation (RPA) allows government agencies to configure software (robots) to capture and interpret existing applications for processing a transaction, manipulating data, automating responses, and communicating with other systems. Any business process can be automated. To maximize ROI, processes that involve structured data and are handled in a predictable manner are ideally suited for automating.

Software robots (“bots”) are set up to manage these processes, performing tasks that users assign, monitor, and control; the software allows for appropriate human intervention when additional input is required or exceptions are noted. A relatively small organization called the Center of Excellence (COE) tracks all robot activities via an easy-to-use dashboard. Additionally, the COE monitors processes, execution, errors, and task completion using advanced analytics algorithms and reports.

Bots interpret, respond, and communicate with other systems to perform a wide variety of repetitive tasks — many of which, when managed by traditional office staff, are prone to error. RPA robots log into applications, move files and folders, copy and paste data, fill in forms, extract structured and semi-structured data from documents, scrape browsers, and more. RPA bots rigorously follow the standards the user publishes and can process exceptions based on rules. They can reduce operating costs by increasing capacity and the throughput of work, while operating 24 hours a day without error. Additionally, they are highly auditable and seamlessly document all of their work.

By 2025, McKinsey and Company estimates that RPA’s impact on the global economy could reach as high as \$6.7 trillion. This is primarily based on the technology’s ability to match the output of 110 million to 140 million full-time equivalent (FTE) employees. McKinsey notes that 30 percent of all hours that employees work globally could be automated by 2030.

These statistics indicate that RPA is experiencing quick adoption. Presumably, this is because organizations are seeing its demonstrable value in reducing costs, increasing productivity, improving job satisfaction, and, — in the case of government —



By rapidly automating manual, back-office administrative processes, RPA reduces costs and improves accuracy by leveraging the presentation layer of existing enterprise applications...RPA radically transforms operations, delivering much lower costs while improving service quality, increasing compliance (because everything the software does is logged), and decreasing delivery times... In general, one robot can perform structured tasks equivalent to two to five humans.

— [Harvard Business Review](#)^[3]

improving service to the citizen. Accordingly, RPA is positioned to transform the business of business — and the business of government — over the next decade.

How the Federal Government Benefits from RPA

RPA enables agencies to restructure the way they deliver services to citizens and accomplish mission-critical tasks. Potential benefits include higher capacity, lower operational costs, reduced backlogs, lower error rates, improved compliance and auditing, and freedom for staff to perform higher-value work. Bots are typically low-cost and easy to implement, requiring no custom software or deep systems integration. According to Deloitte, LLP ^[2], agencies can also supercharge their automation efforts by injecting RPA with cognitive technologies such as machine learning, speech recognition, and natural language processing, automating higher-order tasks that in the past required the perceptual and judgment capabilities of humans.

Employees are often the first to appreciate the benefits of RPA, as it removes non-value-add activities and relieves them of the rising pressure of work. With robots handling tedious backroom operations, employees are free to focus on what they do best. Specifically, this means spending more time working on projects that directly affect their constituencies, and increasing the amount of time available to truly serve the citizen.

Justin Herman, Lead in the General Services Administration's (GSA) Emerging Citizen Technology Office, notes, "We keep on coming back to excitement around this. It's that people who are non-technical now feel that there are things that they can do to make their jobs better, to make their missions better — and increase not just efficiencies and effectiveness, but increase citizen satisfaction with services themselves, directly, today, not three to five years from now..."

Herman continues, "OMB [Office of Management and Budget] notes that we're supposed to focus more on high-value work than low-value work, and that's part of the analysis process. And the challenge is, there is no shortage of processes in government that can be fixed or improved. So how are we identifying and prioritizing?"



Nobody pridefully goes home and says, ‘I wish I was doing this tedious work.’ As Treasury says, they used to do up a purchase reconciliation every morning and it would take two hours, and they now can do that in 11 or 12 seconds. They didn’t want to do that work, but it was necessary to do the actual mission of Treasury, which was to get the reconciliation done. We freed people up now to do people work and give the robotic work back to the bots.

—Jim Walker, Federal CTO and Director,
Public Sector at UiPath

Because we know that we can make things faster —but sometimes [we can make them] better as well.”

Another example comes from the Bureau of the Fiscal Service in the U.S. Department of the Treasury.^[4] Over eight months, the Bureau carried out a pilot project where it tested RPA technology on several financial management processes.

“The pilot approach started with moving it into our test environment, identifying seven business processes [where] we wanted to test automation, and then actually executing against that,” says Adam Goldberg, Executive Architect of the Bureau’s Office of Financial Innovation and Transformation. “And we’ve been quite successful in that effort; in fact [we’ve taken] those robots and moved them into our production environment. They’re doing things like reconciliations, account code entries, and system regression testing — very important activities, but things that have a high amount of human intervention within them.”

The Bureau found that the benefits fell mainly into four areas:

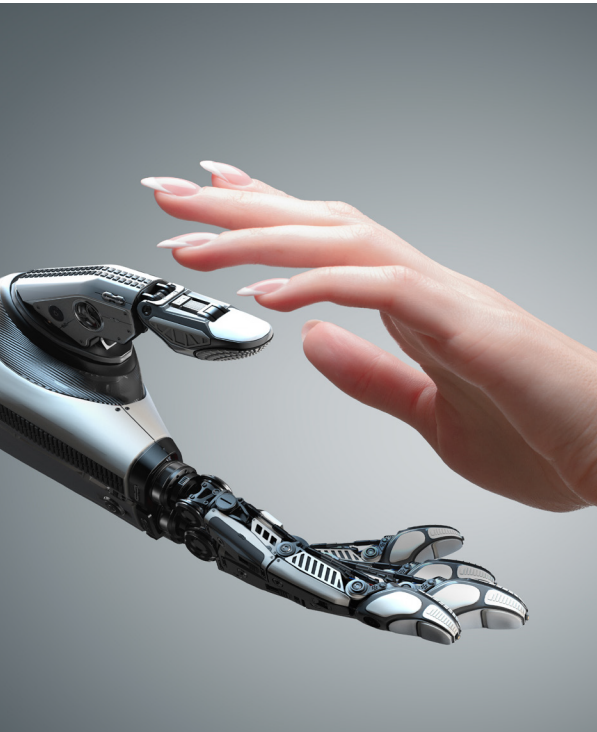
- **Processing Time:** An average of 60 percent improvement
- **Throughput:** Increased by 30 times by using bots on the seven processes
- **Accuracy:** Agencies can expect 100 percent accuracy

Goldberg continues, “The first thing we did was sit down with the group that was going to have some of their activities automated, and we said, ‘We want you to choose what you want to automate’. And I think that immediately took away the concern from these folks as to whether this was something that was being forced upon them, or this was something that they had the opportunity to have a say about, long term.”

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With a sector like [the] public sector, that is so overworked and underappreciated and forced to do more with less, a solution like process robotics really can provide truly transformational efforts to help them deliver better government and services to their constituencies.

— Jonathan Padgett, Vice President of U.S. Federal at UiPath, GovLoop,^[5] September 2018



Additional Examples of RPA in the Federal Government

Like other enterprise organizations, public-sector organizations face issues that require immediate attention. These may include a high volume of work that blocks productivity, a shortage of employees with the necessary skills, frequent regulatory and policy modifications, or insufficient collaboration tools that would otherwise allow different departments to synchronize their work.

The Office of Management and Budget projects IT spending to rise only 1 percent per year in the next decade — less than the rate of inflation. At the same time, an aging government workforce is looking toward retirement. As a result, government is being pressured to rein in hiring, even as workers depart.

RPA is positioned to solve this human capital dilemma by removing standardized tasks from the hands of the remaining workforce and increasing their responsibilities for mission success and improved service to the citizen. When government does hire, the younger workers who join government service tend to embrace technology and have lower tolerance for menial, redundant, and repetitive tasks.

According to a memorandum from the Office of Management and Budget (August 2018),^[6] “Each year, Federal employees devote tens of thousands of hours to low-value compliance activities from rules and requirements that have built up over decades...The President’s Management Agenda (PMA) prioritizes reducing the burden of these low-value activities and redirecting resources to accomplishing mission outcomes that matter most to citizens.”

RPA can quickly return those tens of thousands of wasted hours back to the agencies by eliminating repetitive, time-consuming activities like filling out forms and gathering required data housed in different systems.

RPA enables agency staff to focus on more fulfilling work, with the end result being a happier, more productive workforce, increasing both staff retention and job satisfaction.



Federal Government Use Cases

Deloitte LLP ^[2] reports that for a mid-tier Fortune 1000 organization with \$20 billion in revenue and 50,000 employees, automating 20 percent of qualified activity through RPA could result in a \$30 million bottom-line impact each year. Effects of this magnitude suggest even greater potential on a government scale, with 2.8 million federal employees and \$3.2 trillion in yearly revenue.

Government stakeholders — including citizens — expect government to operate as efficiently as a commercial business. A growing number of federal agencies are using RPA in a production environment. Several are carrying out proofs of concept and pilot projects to better understand the technology and the value it can bring to their organization. Examples include:

- The NASA Shared Services Center (NSSC) has recently deployed UiPath's RPA solution in a production environment, after UiPath passed NASA security requirements and achieved milestones during implementation. Services will be increased to other NASA Service Centers over the next few months. NASA Shared Services is using bots in HR, Procurement, Financial Management, Enterprise Services, and agency business development.

Kenneth Newton, Director of Service Delivery for NASA's Shared Services group, notes that, his group has nearly 15 operational projects, 46 projects "ready to begin work" and more than 300 RPA projects in the pipeline. Of the 300, all are employee ideas.

Says Newton, "We're just scratching the surface — just within Shared Services. Ultimately, this is going to be a tool that all of NASA can tap into for all of its back-office activities...[RPA] has become a part of our continuous process improvement... It is foundational."

- GSA is exploring ways to automate administrative tasks within the acquisition process, allowing its workforce to spend more time focusing on high-value, analytical work; increasing skills training; bettering stakeholder engagement; and improving data integrity.



Right now [the CFO shop] has six bots deployed that have freed up 17,000 labor hours and [we] are looking at more. Basically, the strategy — and we see this across a number of agencies — is multi-phased, where first you start deploying small-scale, five or six bots, test them out, and look not just at the technology available, but use the opportunity to relook at the processes themselves.

— Justin Herman, Lead,
Emerging Citizen Technology Office, GSA

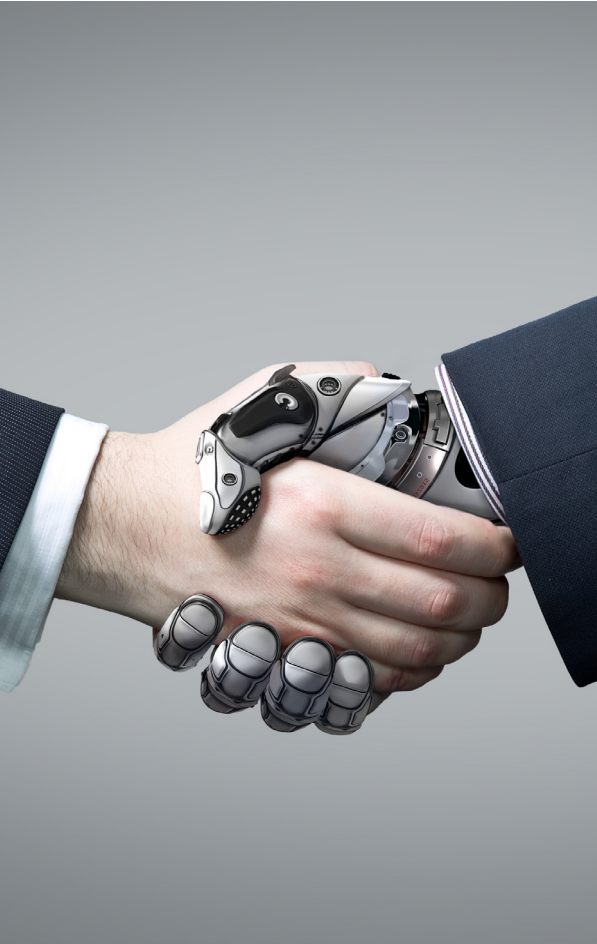
Launched in spring 2018, the agency's RPA pilot has been field testing a bot that can perform tasks like populating a vendor's offer information into pre-negotiation memos, pulling and validating DUNS numbers, and printing and emailing .pdfs in literally seconds. In contrast, manual execution of these tasks would have taken more than an hour on average, each time.

"Today, our employees have to spend too much of the day cutting and pasting general information from one document to another. RPA lets us focus on contract negotiations, stakeholder engagement, and training to be a more well-rounded and agile acquisition workforce," says Jeff Lau, FAS Regional Commissioner, GSA Northeast and Caribbean Region.

The bot is named "Truman" in honor of President Harry Truman, who established GSA to streamline the administrative work of the federal government.

- According to Federal Computer Week (August 2018)^[7], the White House is planning to use automated bots to handle repetitive tasks in financial management and contracting.
- Federal Computer Week (September 2018)^[8] also reports that, "GSA has identified 41 possible areas for RPA, 29 of which could save between one and 100 hours per month."
- The Internal Revenue Service (IRS) is using bots to manage transactional and repetitive business functions. "At the end of the day," says Harrison Smith, Acting Chief Procurement Officer, "I don't need an individual to sit and go into a public website and type in an eight- to 12-digit number 10,000 times per year...They need to be able track that, to do the appropriate things in accordance to the regulations. But if a bot can generate that analysis to say, 'Hey you're good; go ahead and process the paperwork here,' or 'Here, we need to take a look at this', the ROI we're talking [about] is roughly 10X relative to the cost of the man-hours...It's something where we may save up to 7,500 to 10,000 man- hours a year — so it's on an ongoing basis.

Smith continues, "I think once we get to that point as organizations, we create this virtuous circle, right? There's this concept of theory of constraints and those types of things. But



you've got a situation where there's a lot of other work that I could be doing. I could be engaging with my customer earlier; I could be engaging with industry earlier...And freeing up our time and resources to do those things that are more valuable – and often, frankly, more exciting for the individuals who are involved. I think it's a fundamental change in how we do business..."

Best of all, the IRS is taking a bottom-up approach and involving staff from the beginning. "[RPA] really helps get that

"From a procurement organization standpoint, there are all kinds of ideas that we have. For example, personal security processes. Sometimes, our IT systems don't talk to one another. So, being able to manage that – not with someone taking a piece of paper, not taking a printout from one system and typing it into the next, there's not a whole lot of value-add there. I mean, it needs to be done. But the more ways we can find an efficient way to do that, the more we can free up the resources that can attack things that are going to support our customer.

"I think another area regarding why you really look it this, is the data visibility and the transparency of the audit trail. If you get into a situation where everybody wants to have more data, everybody wants to understand better as to where things are, if it's a set of individuals doing this across disparate offices, you have to stop them from doing their work, say, 'Where's your spreadsheet, where's your Post-It note, where's your trail of the transactions you issued?' As opposed to, when it's a bot, you can say, 'Hi, this is going to be part of the process. You've got to be able to spit this out every transaction, every day, every six days, every whatever it is.' And so you've got that tangible feedback into what's going on, what were the results, how am I doing? And ironically, that cycle frees you up to make more informed decisions about what you're doing. Frankly, one of the activities that's listed within the IRS strategic plan is Robotic Process Automation – for a lot of the reasons that we're talking about here."

— Harrison Smith, Chief Procurement Officer (Acting), IRS



engine of innovation and excitement going within an organization,” says Smith. “When you say, ‘If you have a great idea, bring it forward and make a recommendation on how to use the technology,’ I think that is one of the fundamental shifts.”

- The Defense Logistics Agency (DLA) is using RPA to manage inventory reconciliation, contract processing, and employee onboarding, and is even using it to determine to cost for fuels. John Felsted, DLA’s Division Chief, Enterprise Integration and Technology Services, says, “DLA’s primary mission is support of the warfighter; that’s priority one. So the more efficient we can make our employees, the more it benefits the warfighter down at the end of the chain.”
- In a 2018 article, FedScoop^[9] reports that the U.S. Postal Service (USPS) is running an RPA pilot. “The bot...collects missing information about packages four times as fast as a human worker can,” the article reports, citing [former] USPS Controller Maura McDevitt, who spoke about the pilot at UiPath’s inaugural federal user conference, UiPath Together.
- A 2018 Government Computer News (GCN) article^[10] reports that the Defense Information Systems Agency’s (DISA) Accounting and Readiness Division adopted RPA to respond to a Department of Defense (DoD) audit request. The request requires DISA to have its “2017 financial statements ready and reviewable.” In 2017, “DISA piloted a few bots that automated different steps in the audit process. It celebrated the pilot’s conclusion with a human-vs-bot race to pull documents required for an audit. In 15 minutes, the human pulled two items, while the bot pulled 150.”
- And in an October 2017 GCN article^[11], Maximus Federal’s Andy Beamon posits that the U.S. Department of Veterans Affairs (VA) could use RPA to help citizens speed through the benefits and appeals process. Automation would allow the VA “to capture the applicant’s name, address, medical or employment history, or...other data points that impact their eligibility... RPA could pull that information almost instantaneously.” Beamon adds, “Instead of spending hours collecting data, staff can simply review the information compiled by the software and apply their expertise to analysis and recommendation... Such a system could tackle something like the VA appeals backlog — topping 470,000 appeals and averaging a five-year wait time — with ferocity.”

Unprecedented Potential in Government

Based on its performance to date, RPA is uniquely poised to help more agencies across government lower costs, boost productivity, improve service to the citizen, and increase staff satisfaction.

Already, a Deloitte LLP study^[2] of over 400 organizations says RPA adoption has shown to...

- Improve compliance by 92 percent
- Improve quality/accuracy by 90 percent
- Increase productivity by 86 percent
- Reduce costs by 59 percent

RPA can also create jobs, including opportunities for staff re-training and advancement. Managing the RPA enterprise will require a host of engineering, programming, development, and automation management positions. Once a bot is put into production, it will likely require a dedicated team to support:

- Process Intake – Identifying and prioritizing future processes for automation
- Building and Operating – Building, testing, and deploying bots and training staff to carry out these functions
- Monitoring – Observing and tracking bots to ensure they are being used to capacity, as well as escalating any issues that may arise
- Change Management – Managing changes to bots due to RPA software upgrades or system modifications; Training staff on new practices and technologies. ^[4]

As a result, RPA stands to drive the adoption of new skills across the government workforce.

Conclusion

RPA has the power to innovate government's processes and galvanize its people in unprecedented ways. For these reasons, it's positioned to play a valuable role in fueling Digital Transformation in the public sector.

Visit carahsoft.com/UiPath or call **(866)-421-4683** to learn more.

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