



# PROCESS AUTOMATION PRODUCT SURVEY: ROBOTIC PROCESS AUTOMATION (RPA), INTELLIGENT DOCUMENT PROCESSING (IDP), AND PROCESS DISCOVERY/MINING

*Expanding Automation Opportunities in the Federal Government*

EMERGING TECHNOLOGY COMMUNITY OF INTEREST  
Intelligent Automation Working Group

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## **Synopsis**

This report continues the mission of the ACT-IAC Intelligent Automation (IA) Working Group to inform the federal government employees about technology options to advance automation within their agencies. The group previously published an Intelligent Automation Primer and Intelligent Automation Playbook Volume 1: RPA. Since their publication in 2019, robotic process automation (RPA) has advanced rapidly across the federal government. As the federal RPA community expands, so does interest in complementary technologies that are similarly directly accessible to business organizations. This report responds to this trend by providing definitions, use cases, frequently asked questions, and product information for RPA and two technologies that complement RPA, support the RPA delivery lifecycle, and expand it into intelligent solutions: Intelligent Document Processing (IDP) and Process Discovery/Mining.

ACT-IAC is a vendor-neutral organization and does not promote nor recommend any one solution or vendor over another. This report therefore does not comparatively assess products. It is intended to provide information provided by the companies in a standard, convenient format.



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The information, conclusions, and recommendations contained in this publication were produced by volunteers from government and industry who share the ACT-IAC vision of a more effective and innovative government. ACT-IAC volunteers represent a wide diversity of organizations (public and private) and functions. These volunteers use the ACT-IAC collaborative process, refined over forty years of experience, to produce outcomes that are consensus-based.

To maintain the objectivity and integrity of its collaborative process, ACT-IAC welcomes the participation of all public and private organizations committed to improving the delivery of public services through the effective and efficient use of technology. For additional information, visit the ACT-IAC website at [www.actiac.org](http://www.actiac.org).

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The mission of the Intelligent Automation Working Group is to provide useful information to federal agencies seeking to implement intelligent automation through the collaborative efforts of government and industry members. The Emerging Technology Community of Interest mission is to provide an energetic, collaborative consortium comprised of leading practitioners in data science, technology, and research, engaged with industry, academia, and public officials and executives focused on emerging and leading technologies which transform public sector capabilities.

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## Introduction and Executive Summary

In “The State of Federal RPA” (Robotic Process Automation) released in November 2020<sup>1</sup>, the General Services Administration (GSA) reported that membership in the Federal RPA Community of Practice had exceeded 1,000 individuals from over 65 agencies. From FY19 to FY20, the number of deployed automations increased from 219 to 460, and the number of annual labor hours automated increased from 285,651 to 348,336. As the number of business operations staff who are directly involved with RPA as managers, process owners, users, or developers expands, so does interest in expanding the scope and impact of automation through similar technologies that are directly accessible to business organizations. This report responds to this trend by providing details of RPA product offerings and products that complement RPA, support the RPA delivery lifecycle, and expand it into intelligent solutions.

RPA is “low code-no code” software that emulates rule-based, repetitive computer keystrokes and interacts with systems via user interfaces or APIs, reducing cost and process cycle time and increasing efficiency, accuracy, and customer satisfaction. These benefits are compounded when employees shift to higher-value, more satisfying work.

Intelligent Document Processing (IDP), sometimes called intelligent optical character recognition (IOCR) or intelligent data capture (IDC), applies artificial intelligence (AI) technologies such as machine learning, natural language processing (NLP), and cognitive vision to document classification, enhancement, and conversion of semi-structured and unstructured documents such as text, email, and scanned and digital images into structured data for processing. In effect, it expands the boundary of machine-readable documents, unlocking vast amounts of information for analysis and further processing by RPA and other IT.

Process Discovery and Process Mining technologies capture computer keystroke and transaction logs to provide process and system usage insights that support efficiency improvement through process optimization, simulations, automation, and user training.

IDP and Process Discovery/Mining complement and expand the scope and impact of RPA, combining with it to create powerful digital transformation solutions that increase the efficiency of government operations and advance agency missions.

ACT-IAC is a vendor-neutral organization and does not promote nor recommend any one solution or vendor over another. Therefore, this report does not comparatively assess products. Rather, it is intended to provide information provided by the companies in a standard, convenient format, including vendor contacts from whom pricing and other additional information can be obtained.

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<sup>1</sup> <https://digital.gov/guides/rpa/state-of-federal-rpa/>

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The report was compiled from company responses to a questionnaire developed by the Intelligent Automation Working Group, part of the ACT-IAC Emerging Technology Community of Interest.

The following sections describe each of the three technologies in further detail, provide several use case examples, frequently asked questions, and product information provided by 17 software companies.

## Robotic Process Automation

RPA is a low to no-code commercial off the shelf (COTS) technology that can be used to automate repetitive, rules-based tasks. RPA emulates human actions, automating manual processes and tasks to allow humans to focus on higher value work. Common use cases for RPA include data entry, reconciling data across multiple systems, data reporting, and spreadsheet updates.

RPA deployment is the building block leading to machine learning, artificial intelligence, and intelligent automation. However, it is different because it has no decision-making capability. In instances a decision has to be made, it would interact with a knowledge worker.

Processes best suited for RPA are high-volume, repetitive tasks that may involve multiple legacy systems and manual processes. These processes may also require a large number of staff, have to address inaccuracies due to data entry, data quality, and in those instances where staff have to manually enter the same information from one system to another.

RPA is software-powered automation and often referred to as “bots”. These bots act as digital employees that mimic human actions. The bots can save thousands of manual labor hours annually and can be implemented in a short period of time. RPA does not require a deep programming background. It is important to have subject matter experts that have intimate knowledge of the business process that will be automated. RPA bots utilize the user interface to interact with the system, trigger responses, and communicate with other systems similar to how humans interact with systems. However, RPA bots never sleep and do not make mistakes, making them much more efficient and accurate.

To get started on RPA, select a use case that will provide significant return on investment. Typically, benefits are realized quickly, and knowledge workers realize that RPA offers tangible benefits to them directly. Also, engage with C-level executives to get buy-in and support, because it is important that the workforce understands the value RPA bots will bring as digital employees and the fear of technology does not undermine the automation project. Once the use case and process to automate has been determined, look at the day-to-day operation of the bots, in particular respect to audit and security requirements. RPA bots could potentially work with confidential data; therefore security considerations are important and would change based on the use case.



## Intelligent Document Processing

Intelligent Document Processing (IDP) technology is a huge leap over the basic optical character recognition (OCR) technologies that struggle to extract reliable data efficiently. IDP solutions enable efficient extraction of relevant and accurate data from structured, semi-structured, and unstructured documents such as forms, invoices that may be in either electronic or handwritten text formats. In addition, IDP tools can extract relevant data for further processing, leveraging AI technologies such as computer vision, natural language processing [NLP], and machine/deep Learning. IDP solutions can enable federal government agencies to convert and digitize paper files quickly and accurately and improve record management and compliance.

IDP solutions, which automate manual well-defined tasks and processes, can perfectly complement RPA solutions but lack the efficient extraction of unstructured data formats such as handwritten/electronic documents such as PDFs, emails, and images.

Ideal IDP automation use cases are those that include labor-intensive document scanning and extraction workloads. Implementing an IDP solution can reduce data entry tasks and shift valuable resources to focus on higher value work, such as analyzing data, improving existing workflows, and making efficiency gains.

To summarize, IDP solutions can read, process, and output relevant accurate data quickly and enable getting answers or faster delivery of critical services for federal agencies.

## Process Discovery / Mining

Process Discovery and Process Mining technologies analyze operational processes based on keystrokes, historical transaction logs and other system and human-created digital data. These products can provide process and usage insights supporting efficiency improvement through process optimization, simulations, automation, and user training. The goal of process mining is to turn event data into insights allowing for process improvement and process automation. As people and software robots work with corporate IT systems, their activities via elements such as a unique identifier, an activity label, and a timestamp, are captured by those systems. Process mining transforms this data into an event log and can create visualizations of the end-to-end process, along with insightful analyses. Processes can then be improved after these unified baselines are established, and those processes found to have highly repetitive components that do not change frequently become top candidates for automation. In addition to structured data, such as those derived from XML, SAP, Oracle, or ServiceNow, some industry tools also leverage AI to incorporate unstructured data (e-mails, PDFs, or raw Excel files).

**Task Mining/Capture:** Also known as Task Capture, can take multiple forms. The most commonly used form is having business analysts sit with employees to monitor their work tasks, ask questions, and then map the results into a process definition document (PDD). This process requires a strong and efficient methodology, the right skill set, and a willingness to participate by the process owner(s).

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**Automated Task Capture:** Task Mining leverages an AI agent installed locally to analyze employee desk activities to construct a process or activity graph and determine automation opportunities. These are usually those enterprise actions and processes which are most repetitive, and benefit from high consistency, the automation of which leads to greater efficiency and productivity. Task Mining monitors mouse clicks and keystrokes around common applications and roles and gathers data on frequency and duration of use. This is combined with context recognition to understand how tasks are executed and the variations across teams. However, data privacy and related issues should always be considered before doing this.

By leveraging RPA tools, process owners can quickly navigate through the steps for a use case one would like to automate by taking screenshots and gathering data for each step. The application then organizes the screenshots and data collected to generate a process definition document (PDD) or extensible application markup language (XAML) file which is then ready for development teams to start bot development.

**Benefits are as follows:**

- Accelerates process analysis and documentation timelines.
- Enhances effectiveness of developing processes for complex workflows.
- Enables Business Analysts and RPA developers to be more closely aligned, resulting in better products.
- Creates a body of knowledge that can be shared across the enterprise.

Process Mining, Process Discovery, and Task Capture include reduced time required from a business analysis perspective, while also allowing RPA developers to focus more on development and less on clarifying requirements. Time and motion studies and staff interviews can be minimized and converted to validation reviews rather than explorations. Additionally, the sequencing of an entire “as-is” process can provide a baseline organizations did not realize they needed, allowing various stakeholders to come together with a unified understanding of the current process and its standard variants as they attempt to prioritize improvement initiatives. These technologies can also provide clear cut data with which to conduct Value Stream Mapping (VSM), allowing for more rigorous, data-driven decision-making on prioritization of improvements and automations. VSM calculations illustrate potential time or money savings, as well as potential consistency improvements and risk mitigations that can be achieved by implementing various automations. Lastly, process mining can continue to serve as a compliance or audit check after a process has been improved. These tools can monitor adherence to the new process and flag variants to process owners and stakeholders.

## Use Cases

The IA Working Group identified 12 use cases that provide good examples of how RPA, IDP, and Process Discovery/Mining can be used and benefits achieved. Since RPA is currently the most widely used

among the technologies in the federal government today, this paper describe five RPA use cases. Five use cases demonstrate the synergistic ways in which the technologies can be combined in solutions, which was the reason for combining them in this survey and report. Two use cases combine Process Discovery/Mining and RPA, two combine IDP and RPA, and one combines all three technologies. Two IDP use cases complete the 12.

***RPA Use Case: U.S. Air Force Personnel Center Travel Administration***

Brilliant Corp. developed an attended RPA bot for the Air Force Personnel Center (AFPC) that ensures that airmen travel records are accurate and up to date. The bot updates continental United States travel (CONUS) travel records based on a rule set to correct travel codes not properly entered into the system. This ensures that records are accurate to calculate travel and non-travel time for all airmen and significantly reduces the workload of the business process owners. Due to the manually intensive nature of the process and because it is performed by hundreds of personnel across the Air Force, AFPC had built up a backlog that was estimated to require approximately 229,000 labor hours to clear. The automation was developed in only two weeks.

***RPA Use Case: U.S. Department of Veterans Affairs, Enterprise Service Desk***

General Dynamics IT implemented an RPA workflow for the Department of Veterans Affairs (VA) to support Automated Incident Routing: the automatic escalation of incidents to appropriate local IT groups based on key words and other indicators from Help Desk customer tickets. This automation resolved a high volume of incorrectly categorized Tier 1 tickets, reduced mean time to resolution (MTTR) of incidents by over 40%, and reduced mean time to escalate (MTTE) incidents to Tier 2 by 97%.

***RPA Use Case: Proposal Management***

To aid in the communication and management of potential proposal opportunities, Computer World Services (CWS) developed a solution set that captures proposals, communicates captured information, and stores results in a dynamic Azure repository. The solution was built using RPA and a low code solution.

***RPA Use Case: Payroll Tax Reconciliation***

A major Logistics company requested Matthew Clark (Longevity Consulting Intelligent Automation Lead) and a leading RPA vendor to create a solution leveraging unattended RPA to automate their payroll tax reconciliation process. The scope of the work included pulling multiple reports from various enterprise systems and leveraging business rules specifically around tax thresholds to compare each line item in one report to the other and flag discrepancies in the report that exceed the tax threshold perimeters set for each individual tax code. The team of 6 analysts were tasked quarterly to compare over 1500 tax codes and the end-to-end process took approximately 40 hours to complete manually. By incorporating automation into this process, the end-to-end processing time decreased from 40 hours to 2 hours. This enabled the team to spend more time addressing discrepancies which reduced

potential tax penalties that could be accrued by the organization and the automation enhanced overall quality of the tax data because they could now run the process more frequently.

***RPA Use Case: Customs and Border Protection Email File Conversion and Indexing***

Customs and Border Protection (CBP) had 30 terabytes (TB) of archived emails stored in a file format that prevented them from accessing and indexing the emails. They staffed 11 full time employees 24 hours per day to manually convert the files, and in two months had processed just one TB. IBM supported CBP by deploying RPA to support the movement, conversion, and indexing of email files. The conversion of 30 TB of email files into a modernized platform reduced manual processing time of 22 months to 3.5 months and allowed the 24 employees to re-focus on higher value, mission-critical tasks.

***IDP Use Case: U.S. Internal Revenue Service Personnel Security Process Automation***

Anika Systems supported the IRS Human Capital Office (HCO)'s Personnel Security Organization (PSO) which faced an increased workload and caseload of contractor and employee investigations. The scope included determining which processes are suitable for automation and what is needed to automate the identified processes using Intelligent Automation (IA) technologies, such as RPA and IDP. The company assessed various Personnel Security processes and determined the potential use of RPA + IDP Solution - forms that include handwriting or computer filled characters such as Fair Credit Reporting Act, optional form 306 (OF306), reasonable accommodation committee (RAC) Form, Supplemental Questionnaire for SF85P.

Once deployed into production, the SF85P Form Review process will be reduced from 15 minutes to 2 minutes, saving approximately 5,200 FTE hours/year.

***IDP Use Case: U.S. Department of Agriculture Farm Production and Conservation Digital Records Management System***

Brilliant Corp. supported the goal of the U.S. Department of Agriculture's (USDA) Farm Production and Conservation (FPAC) organization to replace manual paper-based business processes with a full lifecycle, National Archives and Records Administration (NARA)-compliant electronic records management system. The scope includes digitalization of millions of paper records at 2,400+ USDA field offices and improved accessibility of USDA field data to FPAC and the Nation's farmers, ranchers, and forest landowners. As part of a broader Digital Records Management System (DRMS) that includes scanning and middleware, intelligent document processing (IDP) is performed on the records in the current content stores in FPAC to enhance their metadata and migrate them into cloud content and metadata stores. Business transaction documents will be indexed, searchable and retrievable online via use of full text searches, complex multi-criteria fielded searches, and multi-field sort.

***IDP and RPA Use Case: Sales Order Creation***

A major manufacturing company requested Matthew Clark (Longevity Consulting Intelligent Automation Lead) and a leading RPA vendor to automate their Sales Order creation process by leveraging unattended RPA, Optical Character Recognition (OCR), and Machine Learning capabilities. The scope included creating a bot that receives purchase orders in PDF from over 400 distributors via email, opening the PDF, and leveraging OCR coupled with machine learning to extract the proper data points navigating through over 500 variations such as form type, word association usage, language, and data location. Once the data is extracted, the RPA bot is triggered to login to the associated system based on business rules, create a sales order, and then save the purchase order and associated Excel file in an archival location. From historical data, the sales team created approximately 1,000,000 sales orders per year ranging from 7-15 minutes in manual processing time. By incorporating RPA & IDP into this process, the automation was able to complete this process in 1-3 minutes. The organization also saw a 35% increase in the overall sales team productivity, and the automation caught 99% of all errors in the purchase order data.

***IDP and RPA Use Case: Auto-Invoice Loader***

Industry and government are constantly bombarded with new tools, techniques and resultant formats representing invoices. As a result, Computer World Service (CWS) recognized a need to automatically identify, analyze and load invoices from disparate sources. This ultimately led to the development of an Auto-Invoice Loader tool, which utilizes OCR combined with Machine Learning to identify, characterize and load invoices. This processing is governed overall via a RPA solution, which manages the transaction sets end-to-end. Upon loading, the invoices are then positioned for processing to the necessary destination system. Further, the tool set captures result sets regarding load processing, which is envisaged via an advanced business intelligence suite to reach conclusions regarding health of the system. This business intelligence suite is further used to gain insight to invoice details, providing key insights regarding business processing as well as aspects related to total spend, etc. Leveraging this tool set, CWS can provide customers with a robust solution set to expedite invoice processing.

***Process Mining and RPA Use Case: Using AI for Process Improvement at U.S. Department of Housing & Urban Development***

General Dynamics IT (GDIT) collaborated with the Department of Housing and Urban Development (HUD) on an innovation project conducted to obtain insight into the performance, pain points, bottlenecks, and areas for improvement across the HUD HR Hiring Process and Procurement activities. This project leveraged the Live Objects product for process mining and discovery.

**Tools**

- Live Objects AI-enhanced process mining tool accelerated process mining/discovery.
- Tableau visualization tool was wielded to share insights in role-based “panes of glass.”
- UiPath robotic process automation (RPA) was leveraged using findings and process design documents from Live Objects in development of bots.

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## Activities

- Analyzed digital footprint of each of the processes using structured and unstructured data, such as system logs, comma-separated values (CSV) exports, e-mails, PDFs, and other data trails to create a process map with timing and variations within the target process.
- Closely collaborated with leaders and SMEs to learn together real-time and pivot project in an agile manner based on findings to optimize investigation and outcomes.
- Documented findings, visualizations, and recommendations and produced three automations to improve consistency and speed while reducing manual labor.

## Benefits

- Reduced the time typically required to meet with subject matter experts.
- Generated single source of analyzed data with a variety of data visualizations.
- Provided baseline for an overarching Human Capital Transformation Project.
- Aligned stakeholders on process path and definitions.
- Allowed for the production of RPA bots to optimize manual efforts.

### ***Process Mining and RPA Use Case: Leveraging Process Intelligence to Enhance Continuous Improvement and RPA Capabilities***

A large logistics company's Continuous Improvement (CI)/ Robotics Process Automation (RPA) department requested Longevity Consulting and Signavio to create a solution that would help in creating a single source of truth process management warehouse. This warehouse aimed to enable team members and leaders of the organization to have a real time view of their processes to provide better transparency and accelerate the time taken to identify improvement opportunities for leveraging Robotics Process Automation and Business Process Reengineering. Traditionally, it took the CI team 2 to 4 weeks to analyze a given process and identify bottlenecks. By incorporating Signavio's Business Transformation suite into the organization, the organization saw a 60% decrease in overarching analysis time to identify opportunity areas within a process for RPA and BPR. Because of this improvement, the organization was able to scale their RPA program 4 times faster than traditional methods because of their ability to identify numerous RPA use cases in a more efficient manner. The business suite also provided the organization the power of transparency over all enterprise processes. This enabled the ability to identify the source of issues within a given process and be able to resolve them much more efficiently than traditional methods creating a more agile driven culture that supported process improvement across the organization.

### ***Process Mining, IDP and RPA Use Case: Veterans Benefits Administration Intelligent Claims Processing***

IBM is providing end-to-end intelligent claims processing to the Veterans Benefits Administration (VBA). Processing VBA claims is complex, with over 220 document types including unstructured correspondence mail that has to be processed and information extracted and corrected through IDP

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based on the document data. Process mining is used to understand the data, drive automation design, uncover opportunities, and provide real-time/historical process intelligence to continuously improve automation. Task automation is performed using RPA to navigate a system and retrieve data for more advanced AI-based activities. The level of automated processing has allowed VBA to reskill 550 Claims Assistants and significantly speed up processing time, reducing the backlog of up to three weeks to same day processing.

## Frequently Asked Questions

### ***What are the functions of an RPA Center of Excellence (CoE)?***

An RPA CoE provides a framework, policies, procedures, and templates for all the components of an RPA program: resource management and training; candidate process identification, assessment, and improvement; IT platform security and privacy; and operations management. The CoE normally operates within a broader governance structure that includes an executive steering committee and/or management group that is mission driven and represents organization-wide requirements and priorities. Defining policies, procedures, templates, enterprise performance metrics, and reporting, and ensuring audit readiness are key functions of the CoE.

### ***How is RPA related to continuous process improvement (CPI)?***

RPA can be viewed as a part of or tool within continuous process improvement (CPI). CPI analysts can play a valuable role in RPA programs. In fact, they can have a greater impact by shifting their focus to support RPA because they can analyze and optimize for automation a larger number of processes. They may be able to improve in one month as many processes as they would over several months as part of a CPI program. Of course, CPI is a valuable part of any organization and should continue but using some CPI resource for RPA program support is an effective way to accelerate benefits from RPA without incremental budget and resource.

### ***What kind of training is necessary for RPA?***

Training includes courses for management, general interest, and delivery and operations. The delivery and operations training should cover all program areas: program and project management; opportunity identification and assessment; documentation; security and privacy approval requirements and procedures; development; testing; operations management; and change control procedures. Agencies who wish to take advantage of the low-to-no-code nature of RPA can train business staff.

### ***How can processes suitable for RPA be best identified and evaluated?***

The processes and tasks selected for automation has a direct and significant impact on the return on investment. It is therefore worthwhile to conduct a thorough search for the best opportunities. Identification of the best opportunities is done by applying the criteria identified in the RPA section of this report, e.g., labor savings, accuracy, process cycle time reduction, compliance. These criteria

determine the business value of automation. What is the best approach to identifying the automations that will generate the highest return on investment? An effective approach is to hold workshops with the experts in each of the major end-to-end processes within the organization, e.g., procure-to-pay, order-to-bill, service request-to-resolution. The RPA criteria are then applied to each step in the process to identify those most suitable and with the highest benefit potential. The process is then repeated for the next more detailed process levels until the best bot candidates are identified. This end-to-end process approach also ensures that implementing bots does not simply shift backlogs downstream and fail to reduce end-to-end process cycle time.

***What are the IT platform choices for RPA and how are these related to security and bot credentialing?***

The IT platform design for RPA has implications for attended versus unattended automation; bot credentialing; security and privacy approval policy; and operations logging, reporting, internal control and audit readiness. Agencies have IT platform options, and these are different for pilot and enterprise solution phases.

Several agencies have begun implementing RPA using a desktop or virtual desktop model (VDI). The RPA software is installed on a PC, which may be dedicated to running the automation or belong to the person responsible for the process (who often performed it manually prior to automation). In this model the automation is run using the user's credentials (ID and password), although with VDI the automation may be assigned its own credentials. The automation is attended, meaning that it must be run by a user, not scheduled to run automatically. Although the user can view the results of the automation immediately upon completion, which is positive from security and control purposes, running an automation from a PC is generally not as secure as from a server that is supported by the IT organization and subject to automatic scans and other security and privacy controls.

Although RPA software typically generates an activity log that allows the automation's activity to be distinguished from the user's activity, this log resides on the user's PC or in the VDI environment. IT support teams responsible for any system accessed by the automation cannot readily distinguish between the two types of activity.

These limitations with respect to security and privacy must be weighed against the benefits of the desktop or VDI model, which allows an agency to run a pilot with little investment cost and gain valuable experience while an enterprise platform is being established.

A server-based platform (on premise or cloud-based) has several advantages over the desktop / VDI model:

- Automations can be assigned their own credentials, allowing transaction processing to be distinguished from that of any other user;
- Automations are unattended and can be scheduled to run during non-business hours;
- Automatic security scans can be performed on the server per standard IT procedures; and



- More extensive operational reporting is produced for management and audit purposes. (The log data produced by attended automations must be further processed to create useful reporting.)

Given these significant differences between IT platform types, security and privacy approval policies and procedures typically are platform dependent. This is because the Authority to Operate (ATO) for RPA must address attended versus unattended operation, credentialing, internal controls, and auditability. The approval requirements may include some of the documentation listed above for audit readiness.

Agencies have different policies and approaches to security and privacy approval for RPA. The differences relate to whether systems can be 'whitelisted' for RPA or each automation must be approved separately and, if so, the documentation required for approval. Thus far guidance from the Office of Management and Budget has been limited to stating that 'Non-Person Entities' must use their own credentials; however, this allows latitude for interpretation by agency security authorities.

Security and Risk personnel should follow zero trust practices for a Non-Human Workforce. Best practices should mirror and extend policies from a human perspective. Access controls should be granular enough to provide flexibility to accomplish the tasks of an automation while meeting the governance of a specific agency. Credentials should be encrypted and maintained by secret vaults and anomalous behavior should be monitored.

In the case of privacy, agencies can address RPA as part of existing policy and procedures requiring Privacy Threshold Assessment (PTA) and Privacy Impact Assessment (PIA) for new systems and system modifications. Personally Identifiable Information (PII) handled by RPA can be addressed through this documentation and requirements as for other IT. While PII handling by RPA understandably warrants added scrutiny for security and privacy purposes, it must be recognized that RPA removes many vulnerabilities associated with human users. RPA also generates more readily available and extensive system activity logging, which is beneficial from a security perspective.

### ***Should business staff be trained to develop bots?***

The 'low code-no code' nature of RPA permits self-learning by those without formal IT training. The guiding principle is that development should be done according to established IT rules and best practices whether the developers are outside or within the IT organization. Examples are the following:

1. **Architectural review and guidance** by an experienced developer prior to the assigned developer beginning development.
2. **Periodic code reviews** during development to ensure quality, use of best practices and re-use of existing automation components when possible; and
3. **Developer access limited to development and test environments**, with deployment to production environments done by a separate team. This prevents a developer from modifying

an automation without authorization after it has passed user acceptance testing and deployed to production.

### ***What is involved in operating and maintaining bots in production?***

There are seven capabilities required for successful RPA production operations: automation maintenance; change control; performance measurement, monitoring and dashboards; software license management; resource and automation pipeline management; IT platform operation and maintenance; and ongoing security and privacy re-certification.

1. **Automation Maintenance** includes the following: a process and tool for reporting and tracking through resolution any malfunctions, unexpected results, and other error conditions; a service level agreement (SLA) with users specifying targets for response and resolution times; allocation and management of resource to meet the required service levels; and documentation of any changes to the automation design, code or operating procedures (may be done as modifications to the Process Design Document and/or Operations Guide for the automation).
2. **Change Control** includes the following: a process and tool for users to request modifications or enhancements to automations; a Change Control Board to review, approve, ensure funding, and schedule delivery of change requests (this can be the management group referenced in Q&A above related to a Center of Excellence); and documentation of any changes to the automation design, code or operating procedures (may be done as modifications to the Process Design Document, System Design Document and/or Operations Guide for the automation). A critical part of change control is monitoring of changes to the systems touched by the RPA automations. The RPA operations management team must be a part of the release management process for all systems accessed and understand the timing and impact of changes to any user screens utilized by RPA. Engagement must be sufficiently early in the process to allow time for automations to be modified and tested prior to the system release going live.
3. **Performance Measurement, Monitoring & Dashboarding** includes the following: a process and tool for logging and reporting all transactions processed, including volume, duration, time, credentials used, and any error conditions encountered; a daily, weekly, and monthly summary-level management dashboard covering all automations and including transaction volumes processed, errors, maintenance, and change activity, and commentary on overall performance, resource utilization, and other matters of interest to business and IT management. Network performance and connectivity must also be monitored as RPA automations are configured for system response times. A useful measure of benefit is labor hours automated, which can be dynamically updated by multiplying the transaction volume by the previously required time to perform the process manually. This captures the increase in labor savings over time. Management may also decide to convert labor savings to dollars based on average hourly rate, representing either direct savings, avoided cost, or increased capacity to perform other higher-value work.
4. **Software License Management** – This is required to ensure that the optimal number of licenses are purchased, renewed annually, and increased over time in line with development activity and

the number of automations running in production. This is recommended to be a PMO activity as licenses can be efficiently managed and optimized across business and IT organizations, and projection of future automation is required. License configurations are typically based on use for development, running automations, and whether automations are attended or unattended and require scheduling / orchestration.

5. **Resource & Automation Pipeline Management** - As explained in the Resource Management & Training section, it is necessary to balance the level of resource used for intake (opportunity identification and assessment) versus development to avoid either unused development resource or excessive pipeline growth. This is one of the most significant challenges of ongoing RPA program management. Resource flexibility in switching between development and intake when needed is helpful and use of contracted resource can also provide flexibility.
6. **IT Platform Operation & Maintenance** – The platform capacity must be managed to ensure efficient development and automation running. This is related to license management in that capacity must support automation running schedules. Standard platform support such as database management and support for software updates and issue resolution must be provided.
7. **Ongoing Security & Privacy Certification** – The documentation originally used for security and privacy approval must be updated for any automation changes as they occur. For attended automations, authorized user information must be updated as needed.

### ***What are the functionalities of IDP?***

There are several functionalities of IDP: Document ingestion; OCR; image enhancement; classification; intelligent data extraction; workflow and data/document export; and analytics.

**Ingestion:** IDP products can typically ingest multiple document types, including digital and scanned, email, and images.

**OCR:** Converts paper, microfilm and other text-based media to digital form. Some IDP products leverage multiple OCR engines to achieve the best quality for specific document types.

**Enhancement:** Techniques such as de-skewing, de-speckling, and lightening are used to improve image quality for further processing.

**Classification:** IDP products are configured or use cognitive vision and machine learning to automatically recognize document types and formats for further processing.

**Intelligent Data Extraction:** AI technologies variously described as natural language processing, cognitive vision, deep learning are used to extract data from structured, semi-structured, and unstructured text documents and images. Supervised, a.k.a. human-in-the-loop, machine learning is used to train algorithms to improve data extraction accuracy over time.

**Workflow and Export:** Once data is extracted, the data and/or documents can be routed for review, approval or other actions. Some of the products included in this survey include native

RPA to facilitate workflow, and others can integrate with RPA products through APIs. Data files and/or documents can be exported to users or provided to other systems for further processing.

**Analytics:** IDP products typically provide reports and analytics capability for the document and data handling process itself, such as transaction volumes and other performance metrics, or analytics on the extracted data.

***Should my agency spend extra money to support Process Mining/Discovery and Task Capture activities?***

In short, Process Mining/Discovery (PM/D) and Task Capture tend to result in longer term benefits that make it worthwhile to conduct.

Leveraging RPA to automate high-frequency actions can lead to savings in time and money and lower risk, even if a process has not been enhanced. In practice, however, it was found that RPA programs often end up leading to unintended process improvement activities. The RPA developers need clear requirements, and in the act of conducting requirements analysis, business analysts inevitably bring leaders and process managers together who end up identifying areas for improvement. Gauge your agency's needs and budget, but take a practical perspective: Can you confidently say the process you are automating is crisp and consistent? If so, no need for PM/D or Task Capture, except potentially for post-improvement auditing. Even when the process or activities are fairly well understood and measured, taking advantage of these technologies can offer incremental improvements, revelations, and auditing/compliance opportunities that mitigate risk and deviation from "best path."

## Product Survey Responses

The working group surveyed 17 companies between June 2020 and March 2021. These companies were invited based primarily on federal government market presence. However, some companies that have significant private sector business and are marketing to the government or potential government contracting partners are included. Some invited companies declined to participate. The working group intends to periodically update the report in the future and hopes to add more companies and product areas.

The companies, product areas, and federal government contracting activity are summarized in the table below. The larger number of companies offering RPA and IDP reflects the larger presence of these products in the federal space relative to process mining/discovery.

The table also indicates whether the companies have existing federal government clients. Some companies do not but have significant private sector presence and are included for government consideration. The survey questions related to FedRAMP, Authorization to Operate (ATO), and contract vehicles are not relevant for these companies so do not appear in their responses.

The products identified for companies in the table indicate native capability, not integration with third-party products through APIs, although this integration is available for some of the companies as described in their survey responses. The National Aeronautics and Space Administration Solution for Enterprise-Wide Procurement (NASA SEWP)<sup>2</sup> contract vehicle was the most commonly held among the companies so is included in the table.

The companies typically resell their products through third-party government contract holders.

The intent was to obtain product descriptions in the companies' own words. They were provided the questionnaire without further guidance as to information required.

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<sup>2</sup> NASA Solution for Enterprise-Wide Procurement is a US Government-Wide Acquisition Contract (GWAC) authorized by Office of Management and Budget and managed by the National Aeronautics and Space Administration.

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## Surveyed Companies, Products, and Federal Contracting

Company / Product	RPA	IDP	Process Mining / Discovery	US Federal Government Clients	NASA SEWP
ABBYY North America					
AntWorks					
Appian					
Automation Anywhere					
Be Informed					
Blue Prism					
Epiance					
Genesys					
Hyperscience					
IBM Datacap					
IBM Process Mining					
IBM RPA					
Infrd					
Kofax					
Live Objects					
Micro Focus					
Pegasystems					
Signavio					
UiPath					

BCP-2646



Date:	6/9/2020
Company Name:	<b>ABBYY North America</b>
Contact Name, Email, Phone No.	Ryan Hannah, <a href="mailto:ryan.hannah@abbyy.com">ryan.hannah@abbyy.com</a> , (703) 629.7368
Product Name:	ABBYY Timeline, Flexicapture, and FineReader Server
<p><b>Company Overview:</b> ABBYY is a Digital Intelligence company. We empower organizations to access the valuable, yet often hard to attain, insight into their operations that enables true business transformation. ABBYY's team of industry experts leave a mark on our solutions with the following things in mind.</p> <p><b>Simplicity:</b> Enabling solutions that are easy to design, deploy and use.</p> <p><b>Intelligence:</b> From Process Intelligence to optical character recognition (OCR), to classification, and extraction, enterprises leverage ABBYY's machine learning and artificially intelligent technologies to drive better processes.</p> <p><b>Extensibility:</b> Designed for broad applicability in the enterprise. By deploying for many processes across an organization, enterprises can better align functions.</p>	
<p><b>Product Features, including Security:</b></p> <p><b>ABBYY FlexiCapture Cloud</b></p> <p>ABBYY FlexiCapture Cloud service is hosted on Microsoft Azure cloud environment. Microsoft provides the security of the hosting environment, which includes physical security, fault-tolerance, redundancy, and operations and personnel security. Microsoft's security procedures, including encrypted communications and operational procedures, identity and access management, intrusion detection, DDoS attack prevention, and penetration testing, are described here. ABBYY provides FlexiCapture Cloud service application security and continuous operations, including a variety of security technologies and procedures to save uploaded data from unauthorized access, use, or disclosure.</p> <p><b>SOC 2 Type 2 certification:</b> ABBYY FlexiCapture Cloud has inbuilt security features related both to infrastructure and platform layers. The product is SOC2 Type 2 certified and is suitably designed to meet the criteria for the security and confidentiality principles set forth in TSP div 100; 2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy, (AICPA); and Trust Services Criteria. The audit report was issued by PricewaterhouseCoopers.</p> <p><b>Germany GDPR compliance:</b> At ABBYY, we take data privacy issues very seriously and make sure that our solutions are compliant with the latest data protection laws. ABBYY FlexiCapture Cloud was created in compliance with European GDPR regulations.</p> <p><b>Clear data location:</b> All customer data is processed and stored within the Microsoft Azure environment. Data centers are located in Western Europe, the United States, and Australia. Each customer can select a region where data will be stored and processed.</p> <p><b>You control access to your data:</b> When ABBYY delivers a complete tenant to the customer, the administrator on the customer side receives complete visibility and control to its tenant, including documents and processed data. Customers can grant temporary access to their FlexiCapture Cloud tenant for ABBYY's partners or employees in case they require support or additional services. This</p>	

access could be blocked at any time by the customer at his/her sole discretion.

**Automatic data removal:** ABBYY FlexiCapture Cloud is a document processing and data extraction service, not a document or data storage service. Documents and captured data could be removed from the service by the customer within two weeks after export to the back-end system. Otherwise, they will be automatically deleted.

**Encryption:** ABBYY service supports encrypted data transfer using HTTPS with high-grade encryption. Data transfer between Azure processing nodes and the storage in Azure is also protected with encryption.

FlexiCapture is a powerful data capture software that works with precision accuracy to convert paper and image documents into business-ready data. ABBYY FlexiCapture automates resource-consuming tasks such as data entry, document separation and classification to significantly reduce the time it takes to deliver the data to business processes. ABBYY FlexiCapture's state-of-the-art architecture scales from cost-effective standalone installations for small businesses and departments to distributed client-server systems for enterprise and government projects. In addition, ABBYY FlexiCapture can be integrated with back-end systems and specific business processes to further improve efficiency and reduce operating costs for organizations of all sizes. Single entry point for documents of all types.

FlexiCapture includes three easy to use methods to send documents for processing. Users can scan paper forms and documents from scanners, email attachments and forms directly to FlexiCapture, or drop files on a "hot folder" which automatically detects new documents and processes them.

**Intelligent Capture:** With intelligent capture algorithms, ABBYY FlexiCapture processes and extracts data from all types of business documents of any complexity, including invoices, purchase orders, insurance enrollment forms, agreements, applications and more.

**Auto-learning and classification:** ABBYY FlexiCapture uses artificial intelligence algorithms to perform automatic classification and data extraction. The new interactive auto learning feature uses image samples to train the program to recognize different document types and find data fields on them.

**Premium quality data output:** ABBYY's widely acclaimed OCR, ICR, OMR and data capture technologies and automated validation rules deliver accurate data to business processes in the shortest timeframe with a variety of output file options.

**Distributed document capture:** Scanning documents right at the point where they originate and quickly delivering them to back-end systems is easy with the Web Capture Station. On-demand scanning and verification can be performed remotely from any location and any computer in a light browser-based interface.

**Scalability and fault tolerance:** The robust client-server architecture with multi-CPU support and automatic load balancing provides optimum processing performance in high-volume projects. Microsoft® Cluster Server support ensures consistent system operation and prevents data loss in the event of a system failure.

**Extensive language support:** ABBYY FlexiCapture processes documents in more than 200 languages, including Chinese, Japanese, Korean and Vietnamese. For hand-printed recognition, ABBYY FlexiCapture supports 113 languages.

**Integration and customization:** ABBYY FlexiCapture offers a complete set of tools for modifying document processing document workflows with custom stages, scripts and external modules. The

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data capture piece can be integrated into existing workflow processes as a Web service.

**RPA Integration:** FlexiCapture Connectors for RPA solutions such as Blue Prism enable a robot to call ABBYY FlexiCapture to intelligently classify documents, extract data, and deliver results back into the robotic process. Human operators can also participate in the validation and review of data that ABBYY FlexiCapture delivers to the robot.

**Auto-Learning:** Capabilities help accelerate your time to production and reduce ongoing system maintenance costs. The technology allows the user to train the system to process flexible or irregular document layouts while the operator retains full control to edit, fine-tune or discard auto-learning results. Not only will the system learn and improve itself based on feed-back from users leveraging ABBYY advanced machine learning and NLP (Natural Language Processing), but the cost of supporting and maintaining the system will be greatly reduced.

### ABBYY Timeline

ABBYY Timeline is a Process Intelligence platform featuring advanced task and process mining technology. Using the latest artificial intelligence (AI), it enables businesses to automatically build an interactive digital twin of their processes, analyze them in real time to identify bottlenecks, and predict future outcomes to facilitate decision-making of technology investments.

ABBYY Timeline provides a highly scalable system via an architecture comprised of a collection of 100% stateless microservices deployed via an elastic container services environment. This allows us to support all SAAS customers with a single multi-tenant instance. The system is designed to auto-scale with the introduction of additional compute capacity. Furthermore, once event logs are loaded into Timeline (Timeline extracts data from practically any system such as Legacy Systems, Packaged Applications ERP, CRM, HCM, EHR, HIS, Databases/EDW/Marts and insights from unstructured and semi-structured document types and content sources.) users can 25 out-of-the-box, prebuilt process visualization and analysis “apps” are provided without need for coding or configuration. Timeline provides a “no code” based visualization and process analysis application that lends itself to both enterprise projects and citizen developers creating process transforming apps.

Timeline also provides a schema overview of the "most common" paths of process execution as do other process mining tools. In addition, Timeline has the ability to detect the exact level of standardization and variation within a given process. In addition to building the schema of the most common path, Timeline documents every variation that a process took as well as the frequency and metrics associated with each variation. For RPA and other automation efforts this allows users to see where there are repetitive steps that can be automated to great benefit as well as where there is excessive variability and additional process standardization may be required prior to automation. With its built-in analytics tools Timeline can then evaluate each process variation to determine issues and root cause of exceptions and inefficiencies.

This is critical given that many of the greatest benefits and efficiencies can be obtained from addressing the process exceptions and outliers as opposed to simply evaluating a schema model. Timeline's Forecasting tool makes predictions of the future process state based on past and present data. The forecast tool gives you the ability to predict the future state of a

process timeline. Assuming outcomes are predictable, you can classify an outcome as a logical completion of the process defined by the completion of an event or a series of events.

#### Visualization

- Epoch: Each epoch is flushing the data through the neural network teaching the machine about the history of the process and how it was executed.
- Confusion Matrix: Displaying false negatives and false positives.
- Timeline Cluster: A grouping of the natural structure of the timelines. Specifically built for the data scientist.
- Forecast outcomes can be filtered to trigger alerts based on the confidence level that you choose. So for example, if a patient is likely to be admitted to the hospital, an alert can be triggered to prepare a bed for the patient.

Timeline provides metrics, dashboards and process monitoring to meet the needs of many operating functions within an enterprise.

Timeline has specifically designed functionality within our pre-programmed Query and Protocol tools to be able to monitor processes to send alerts, create a task or kick off an automated process whenever:

- A conformance or compliance issue is about to, or has occurred.
- An SLA is in danger of being missed.
- Any performance or compliance metric set by an organization is at risk.

In addition, the Query tool can be used to do a 100% audit of historical processes to identify where compliance or conformance issues have occurred and drill down to the root cause for these issues.

#### ABBYY Timeline for FlexiCapture

ABBYY Timeline for FlexiCapture allows users to quickly uncover and understand how content centric processes perform and discover patterns and insights that illuminate paths to better customer experiences and new operational efficiencies. Timeline enables FlexiCapture users to visualize and understand how processes behave and make data-driven decisions for optimizing processes.

More details can be found via the following link:

<https://www.abbyy.com/flexicapture/features/#timeline>

#### Example Use Cases (Deployed Automations):

**ABBYY FlexiCapture** <https://wiki.abbyy.com/display/CSC/ABBYY+Use+Case+Library>

**ABBYY Timeline** Please see the following link for ABBYY Timeline use cases:

<https://www.abbyy.com/timeline/use-cases/>

**Major Federal Government and Commercial Customers:** USPTO, SEC, USCIS, USPIS, US District Courts, USAF, DOI, FDA, CFPB, NSF

#### Integration Service Partners for Federal Government:

Deloitte, PWC, KPMG, Accenture, IBM, LM, NGIT

**RPA vendors:** Blue Prism, UI Path, Automation Anywhere, PEGA,

**Certified ABBYY Partners:** QAI, DS Federal, GAI, EDGE Digital, Deloitte Federal Group

#### IT Platform Requirements (on premise and cloud):

**ABBYY FlexiCapture**

Servers:

Windows Server 2008 R2 SP1 | Windows Server 2012 | Windows Server 2012 R2 | Windows Server 2016 |  
Windows Server 2019

Stations:

Windows 7 SP1 | Windows 8.1 | Windows 10 | Windows Server 2008 R2 SP1 + Desktop Experience  
| Windows Server 2012 + Desktop Experience | Windows Server 2012 R2 + Desktop Experience  
| Windows Server 2016 + Desktop Experience | Windows Server 2019 + Desktop Experience

HTML 5 Web Stations:

Windows 7 SP1 | Windows 8/8.1 | Windows 10 | Windows Server 2008 R2 SP1 + Desktop Experience  
| Windows Server 2012 + Desktop Experience | Windows Server 2012 R2 + Desktop Experience |  
Windows Server 2016 + Desktop Experience | Windows Server 2019 + Desktop Experience

Additional specifications for on premise install can be located at the below link.

<https://www.abbyy.com/en-us/flexicapture/specifications/>

#### **ABBYY Timeline**

ABBYY Timeline is hosted via Amazon Web Services (AWS). AWS containers are used.

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Awaiting ATO for GSA RPA branch.

#### **Licensing Structure:**

Pages Per Year usage basis, or TPC (total Page count).

Subscription based licenses.

Cloud based Licenses as well (AWS, MS Azure) support.

**Federal Agency Purchasing Vehicle(s):** GSA Schedule 70, SEWP, other partner vehicles

Date:	06/15/2020
Company Name:	<b>AntWorks.Inc</b>
Contact Name, Email, Phone No.	Jaslin Huang, <a href="mailto:Jaslin.Huang@ant.works">Jaslin.Huang@ant.works</a> , +65 3127 0000
Product Name:	ANTstein SQUARE

**Company Overview:** AntWorks is an Artificial Intelligence company that enables its clients and partners to not only keep up with technology, but to lead the way. We offer a suite of Artificial Intelligence products and solutions with ‘Best of Breed’ cognitive capability and first-ever features among all of the current RPA competitor market. Be it Digitization, Cognitive Machine Reading, Robotic Process Automation (RPA) or Data Optimization, we deliver superlative efficiencies and savings to our clients. Our self-learning RPA solutions powered by Artificial Intelligence and Fractal Science reduce the need for human intervention, significantly lowering errors and redundancies in – Decision Making, Process Control, Cost Savings, Change Management and Business Continuity Planning – the need for which cuts across every industry segment. Our vision is to reimagine IT across multiple domains and industries with products and solutions that are ‘Fresh, Fearless and Fast’. With some of the sharpest minds in AI, Robotics and Data Science forming the core team, a smart working culture and a talent driven ecosystem, we aim to remain forward thinking, nimble and agile. AntWorks’ solutions power up enterprises with accurate insights through an integrated, intelligent, technology stack that automates and learns independently. Put simply, we accelerate the new, constantly. ANTstein™ is also the first and only Enterprise Intelligent Automation Platform powered by fractal science principles and pattern recognition. With true business transformation and game changing Enterprise Automation capabilities, AntWorks is here to assist its clients and serve industries across the globe.

**Product Features, including Security:**

**COGNITIVE MACHINE READING (CMR)** is the only solution to the problem of exponentially growing unstructured data volumes; and put simply, it is to capture the content more cognitively. AntWorks’ Cognitive-Machine Reading capability allows users to ingest all types of data. Every single data format your business has, CMR will ingest it: structured, semi-structured, unstructured, inferred and image-based data. You name it. CMR takes in all that data, and produces structured data, tokenized concepts and actionable insights.

- Handle multiple data formats: Printed, Handwriting, Table structured, check boxes/bubble boxes, Notary seals/Signatures/Photos.
- Minimize quality checks by providing data certainty.
- Template independent: Agnostic to varying templates.
- Zone independent: No Region of Interest needed.
- Language independent: Supports multiple languages.
- Format independent: Supports file formats viz; PDF, TIFF, JPEG, PNG or any image sequence.

**QueenBot:** Built on fractal science, our integrated, intelligent automation suite combines advanced data ingestion and industry-agnostic automation capabilities into a single platform. It is created for process design flexibility, and enables business users to create, test and deploy bots to automate processes themselves, with No Code-Low Code options. Each single QueenBot™ has the capacity to give birth to

up to 50 ANTbots, all of which then can sit on the user's desktop (or on the server) and deliver the process solution.

The key differences and benefits are:

- Easier bot development: Low code/no code.
- Faster time to production: Utilizes license investment faster.
- Lower infrastructure requirements: Multitenancy.
- Minimal bot down time.
- Higher bot utilization: Intelligent Real-Time Digital Workforce Management.
- Operational flexibility: BOT profile enrichment for intelligent work allocation & BOT utilization.

**Process Discovery:** AntWorks Process Discovery is a machine learning-based software that help organizations identify business solution to automate the conventional business analyst work. The processes may include data gathering, prepare As-Is map, draft keystroke documents, collect metrics and provide business insights. It also helps to identify gaps in business operations using metrics, design automation workflows, making the mapping, planning and implementation of automation quicker and more efficient.

The Process Discovery software is capable to perform the following:

- Capture screenshot (Local and remote desktop).
- Capture keyboard actions, mouse actions, video and audio.
- Prepare process flowchart with screenshot, generate keyboard and mouse actions, video and audio files.
- Prepare matrix that includes comparison and variations of recorded actions.
- Link flowchart, video and audio files.
- Group multiple flowchart, video and audio files.
- Define Tasks to categorize actions based on the activities and check variation.

**Auto Indexer:** Document Identification and Classification Module identifies and classifies documents in different categories, removing the need for sorting and prepping your data for automation. You can further train the system to learn new patterns, variations and document types.

**Email Classifier:** This module organizes and prioritizes customer emails and respond back based on sentiment analysis. It enables the client to read the emails and extract actionable data to automate and speed customer response and then use the actionable data to automate downstream customer service fulfilment. It provides faster data feed to run your customer service analysis.

**Artificial Intelligence:** Enabled by Fractal Science and Advanced Machine Learning. AntWorks built ANTstein an intelligence suite that incorporates machine learning, adaptive learning, deep learning, and reinforced learning to deliver better control over the data life cycle. That means ANTstein has the ability to view "data in motion" to evaluate process effectiveness, identify points of failure and drive advanced operational diagnostics. ANTstein is built using fractal science to extract the original data it relies on; the end result is a dynamic rules engine that leverages flexible and evolving data-driven intelligence for better business decision-making.

#### Unique Benefits

- Operational data made available at all stages of the processing life cycle.

- Data Certainty.
- Cognitive decision-making.
- Advanced operational diagnostics.
- Prediction possibilities.

AntWorks is ISO27001 certified, GDPR and HIPAA compliant and our PCI DSS and SOC Type 2 is currently under progress. We have Security Information and Event Management (SIEM) in place that will provide real-time analysis of security alerts generated by applications and network hardware. Our Computer Security Incident Response Team (CSIRT) provides with services and support surrounding the prevention, management and coordination of potential cybersecurity-related emergencies. Data back-up is done using linear processing, data is stored in the database in encrypted format and destroyed as per retention time set-in. ANTstein adopts the latest industry standard Transport Layer Security (TLS) 1.2 protocol, which is designed to protect the privacy of information communicated over the Internet. In addition, full audit logs that trace and record every action the robots and the users perform within are available. Integration with CyberArk and AES 256 -bit encryption / decryption to maintain highest data security.

**Example Use Cases (Deployed Automations):** Please refer to [https://www.ant.works/content-hub#case\\_study](https://www.ant.works/content-hub#case_study) for a few of our success stories. Additional customer success stories can be provided at later stages of the engagement process.

**Integration Service Partners for Federal Government:** Brilliant, Abacus, Jean Martin, Acronotics

#### IT Platform Requirements (on premise and cloud):

##### ANTstein™ CMR Software Requirements

	Production Environment (Recommended)		
	Orchestrator Server	Database Server	Web Builders
Windows Components	.Net Framework 4.0 and 4.5	.Net Framework 4.0 and 4.5	.Net Framework 4.0 and 4.5  Web Server (IIS) Server Role
Additional Software	Microsoft SQL Management studio MS Office (optional) Adobe Reader	SQL Server 2012 or 2017 (Standard edition and higher, license required) including these components: <ul style="list-style-type: none"> <li>• Database Engine Services Basic</li> <li>• Management Tools</li> <li>• Microsoft SQL Management studio</li> </ul>	

##### ANTstein™ SQUARE CMR Software Requirements

	Production Environment (Recommended)		
	Extraction Servers****	Database Servers	Web Servers
Machine Role	Application Server	Database Server	Web Server
# of servers	According to peak and daily volume of documents to process**. HA and DR requirements as per organization policy	2 (Primary and Secondary)*** HA and DR requirements as per organization policy	1 server per 100 QA's. HA and DR requirements as per organization policy
CPU	4 cores	2 cores	4 cores

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Memory	16 GB	8 GB	32 GB
Disk	100 GB *	100 GB *	100 GB *
OS	Windows Server 2021 R2 or 2016		

\*\*\*\* Separate Allocation Servers and DI servers also required, depends on the actual production Scenarios

\*\*\* Database Servers are always recommended to setup in High Availability mode.

\*\* The number of servers can be calculated according to daily volume of documents, number of working hours and the type of process required.

\* Storage for the OS and Applications and its components. The actual storage required on these servers may vary depends on the specific processes and configurations required

#### ANTstein™ QueenBOT Software Requirements

Production Environment (Recommended)			
	Orchestrator Server	Database Server	BOT Builders
Windows Components	.Net Framework 4.5 Web Server (IIS) Server Role	.Net Framework 4.5	.Net Framework 4.5
Additional Software	Microsoft Visual C++ 2013  Redistributable (x64) • Microsoft SQL Management studio  MS Office (optional)	SQL Server 2012 (Standard edition and higher, license required) including these components: • Database Engine Services • Basic Management Tools • Reporting services • Microsoft SQL Management studio	Microsoft Visual C++  Redistributable (x64)  MS Office (optional)

#### ANTstein™ QueenBOT Hardware Requirements

Production Environment (Recommended)		
Orchestrator Server	Database Server	BOT Builders and BOT Machines
1 physical or VM server	2 (Primary and Secondary)***	According to the number of BOT builders required.
HA and DR requirements as per organization policy	HA and DR requirements as per organization policy	HA and DR requirements as per organization policy
8 cores	4 cores	4 cores
16 GB and above	16 GB	16 GB
250 GB *	100 GB *	100 GB *
Windows Server 2021 R2	Windows Server 2021 R2	Windows 7 or 10 or Server 2012 R2

\*\*\* Database Servers are always recommended to setup in High Availability mode.

\*\* The number of servers and ANTbot machines can be calculated according to number of canvas developers and BOTs to be deployed respectively.

\* Storage for the OS and Applications and its components. The actual storage required on these servers may vary depends on the specific processes required.

**Licensing Structure:** Upfront license cost, per page cost, configuration and maintenance. RPA is license cost, bot cost, configuration, and maintenance.

Date:	2/26/2021
Company Name:	<b>Appian</b>
Contact Name, Email, Phone No.	Natalie Carey, <a href="mailto:natalie.carey@appian.com">natalie.carey@appian.com</a> , 202-558-8428
Product Name:	Appian
<p><b>Company Overview:</b> Appian is a comprehensive low-code automation platform and a recognized market leader in rapid app development. Appian uniquely combines the speed/flexibility of low-code development with the complete automation capabilities required to transform business operations (BPM/workflow, API integration, decision rules, AI, RPA, case management, composite data sourcing, etc.). Appian helps organizations build apps and workflows rapidly, with a low-code automation platform. Combining people, technologies, and data in a single workflow, Appian can help companies maximize their resources and improve business results. Many of the world's largest organizations use Appian applications to improve customer experience, achieve operational excellence, and simplify global risk management and compliance.</p>	
<p><b>Product Features, including Security:</b></p> <ul style="list-style-type: none"> <li>• Low-code interface design for web, mobile, and conversational applications.</li> <li>• AI-assisted development for process modeling and interface design.</li> <li>• Market-leading process modeling, analytics, decision rules, and workforce intelligence engines.</li> <li>• Native DevSecOps capabilities (connected environments, object DIFF analysis, deployment guardrails, etc.)</li> <li>• Integrations with common SDLC management tools (JIRA, Jenkins, Bamboo, GitHub, Fitnesse, etc.)</li> <li>• No-code integration design with support for latest standards and packaged connectors.</li> <li>• Web API design and management.</li> <li>• No-code QuickApps wizard for non-technical business users/citizen developers.</li> <li>• Embedded Google AI services (NLP, Translate, OCR, AutoML).</li> <li>• Prebuilt features for intelligent document processing powered by Google OCR + AutoML.</li> <li>• No-code integrations to AI services from leading cloud providers (GCP, MSFT Azure, AWS).</li> <li>• Native RPA plus no-code integrations to Blue Prism, UiPath, and Automation Anywhere.</li> <li>• Prebuilt features and dashboards for RPA bot governance, reporting, and exception handling.</li> <li>• Content management engine with integration to 3rd party content management systems.</li> <li>• Data modeling and multi-data source persistence.</li> <li>• Digital engagement (telephony, SMS, chat, co-browse) etc. via prebuilt integrations with Twilio and Genesys among others.</li> <li>• Automated location capture and geolocation/geofencing features for mobile.</li> <li>• No-code chatbot design and script editor with integration to Google DialogFlow and Microsoft LUIS.</li> <li>• Offline mobile support for processes/task execution and data management.</li> </ul>	



- Self-service generation of mobile app binaries.

Security is critical to Appian's value proposition as the best low-code platform for enterprise-grade app development:

**Platform Certifications:** Appian provides the deepest set of security certifications in the low-code market and invests millions of dollars each year in quarterly security audits to maintain them. Certifications include ISO 27001, HiTRUST, DISA Level 2, DISA Level 4, FedRamp Level 2, GDPR, HIPAA, SOC1/2/3, PCI-DSS, FISMA, UK G-Cloud, GxP, Cloud Security Alliance, EU-US and Swiss-US Privacy Shield Frameworks, FDA, 508/VPAT, Qualys SSL Labs. <https://www.appian.com/trust/>

**Identity/Access Controls:** Appian provides native integration to LDAP and SAML for identity / authorization services. Appian also supports multiple LDAP and SAML services on a single Appian instance and a native PCI compliant identity and authorization service. Appian authentication can be fronted by one or more SAML authentication services to provide multi-factor authentication. Appian can also authenticate users via other authentication mechanisms such as Kerberos, request header pre-authentication, central authentication service, or certificate-based authentication when implemented by the IdP. Appian mobile also supports biometric authentication.

**Object Security:** All Appian objects have distinct, role-based security and change management permissions. Appian's DevSecOps monitoring dashboard includes a security summary page that scans all design objects to ensure proper configuration and highlight any gaps/errors. <https://docs.appian.com/suite/help/20.4/object-security.html>

#### **Example Use Cases (Deployed Automations):**

Complex Government Workflow Orchestration and Automation - Acquisition, Grants, Correspondence, Regulatory Approvals, Investigative Case Management, HR Lifecycle, Benefits, Loans, Permitting and Licensing, Security, Risk, Compliance, SOAR, OIG, TBM.

**Major Federal Government and Commercial Customers:** Conference of State Bank Supervisors, Department of Homeland Security, DOC, Department of Defense, Department of Energy, Department of Labor, Department of Transportation, Department of Education, General Services Administration, Department of Health and Human Services, intelligence community, Nuclear Regulatory Commission, Department of Treasury, Securities and Exchange Commission, Universal Service Administrative Co., Department of Agriculture, Veterans Affairs.

**Integration Service Partners for Federal Government:** Accenture Federal (AFS), Attain, BlueArc LLC, Booz Allen Hamilton, Deloitte, GDIT Federal, Grant Thornton, Groundswell, IBM, Ignyte Group, Technology Solutions Provider Inc (TSPi), CACI, Chenega, Evanhoe and Associates, HumanIT Solutions, Inc., ICF/ITG, KPMG Federal, Leidos, Maximus, Amyx, Collabralink, Harmonia Inc., Horizon Industries, NTT Data, REI, Systems, Inc., Scope IT Consulting, Brilliant, Creative Pyramid Systems, Ampcus, Appteon Inc., Ace Info Solutions, AEM Holdings, Inc., AttainX, Buchanan and Edwards, DLT, Jazz Solutions, Lark, MindPetal Software Solutions, Northrop Grumman, Perspecta (acquired Knight Point), Red River, Riva Solutions, Inc., Serco, Stratera Technologies, Synergy BIS, Zenius Corporation.

**IT Platform Requirements (on premise and cloud):** There is no need for anything except a web browser to run Appian Cloud. Appian's fully managed cloud offering ensures that customers can focus

on value-add development activities rather than platform maintenance/operations. 80% of clients use Appian Cloud, which runs in Amazon Web Services (AWS) in 24 regions and 77 availability zones worldwide (the rest use either on-premise or hybrid installation). Appian releases new versions of the platform each quarter, with full backwards compatibility and automatic upgrades for clients. 100% of Appian Cloud customers are on a version of Appian no more than 6 months old, and 93% of all clients are on a version no more than 1 year old. <https://www.appian.com/trust/> For on premises implementations, minimum hardware specifications are Windows/Linux Operating System, 4 CPU's, 30 GB RAM, 100 GB Disk.

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Bureau of the Fiscal Service, Centers for Medicare & Medicaid Services, Department of Agriculture, Department of Defense, Department of Education, Department of Health and Human Services, Department of Labor, Department of the Treasury, Department of Transportation, Federal Deposit Insurance Corporation, Federal Transportation Administration, Food and Drug Administration, Nuclear Regulatory Commission, Surface Transportation Board, United States Securities and Exchange Commission, Universal Service Administrative Company

**Is the product FedRAMP certified?** Yes

**Licensing Structure:**

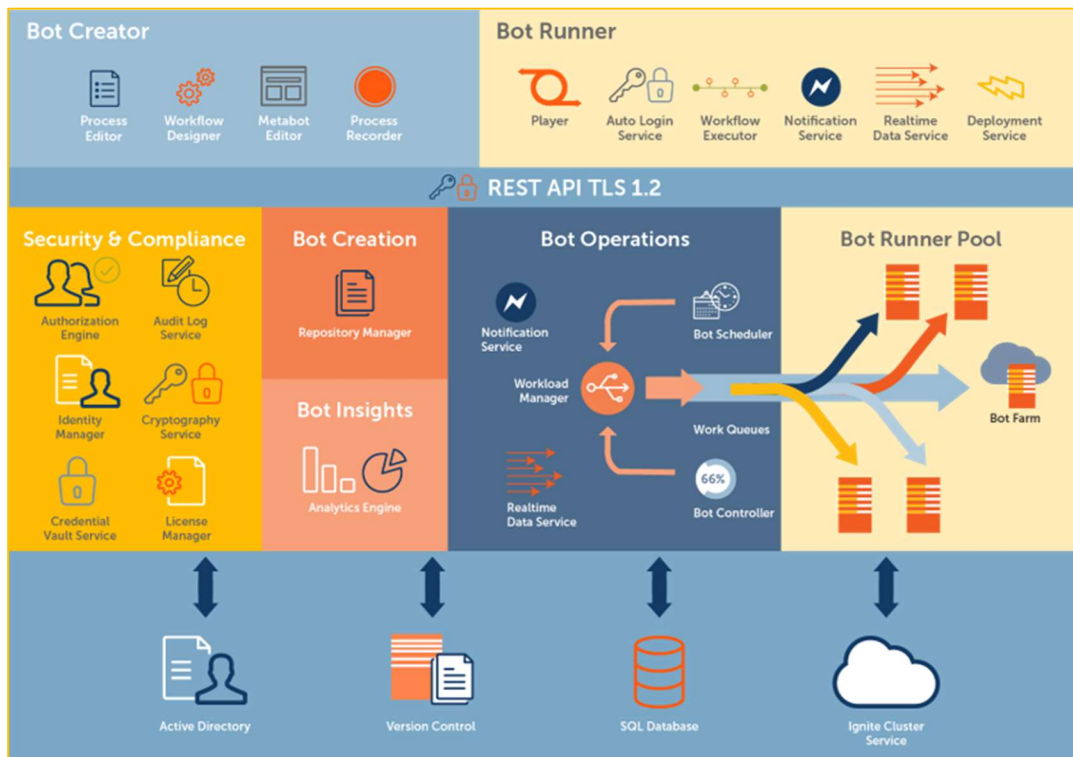
Free trial | User-based | Flat App (One Solution, Unlimited Users) | Appian Guarantee (8 week project, \$150K) | Appian Unlimited

**Federal Agency Purchasing Vehicle(s):** Appian's distributor is DLT Solutions. DLT's Contract Vehicles for Appian Solutions include the following Governmentwide Acquisition Contracts: NITAAC CIO-CS | GSA IT Schedule 70 | NASA SEWP V. Group A and D  
Appian subscription licenses and associated services are available on its distributors' GSA schedules: <https://www.dlt.com/government-products/appian#tab-1016-1>. Appian professional services also are available through Appian's GSA Schedule.

Date:	6/10/20
Company Name:	<b>Automation Anywhere</b>
Contact Name, Email, Phone No.	Noreen Naughton, <a href="mailto:noreen.naughton@automationanywhere.com">noreen.naughton@automationanywhere.com</a> , 410-262-0215
Product Name:	Automation Anywhere Enterprise
<p><b>Company Overview:</b> Automation Anywhere is a global leader in Robotic Process Automation (RPA), empowering customers to automate end-to-end business processes with software bots that perform repetitive and manual tasks, resulting in dramatic productivity gains and business resiliency with less than one-year payback, on average. The company offers the industry's leading web-based and cloud-native intelligent automation platform combining RPA, artificial intelligence, machine learning and analytics right out of the box, to help organizations rapidly start and scale their process automation journey. Its Bot Store is the world's first and largest marketplace with more than 1,000 pre-built, intelligent automation solutions. With a global network of 2,000 partners, Automation Anywhere has deployed over 2.4 million bots to support some of the world's largest enterprises across all industries.</p> <p>For additional information, visit <a href="https://www.automationanywhere.com/solutions/public-sector">https://www.automationanywhere.com/solutions/public-sector</a></p>	
<p><b>Product Features, including Security:</b></p> <p>Automation Anywhere is Automating rule-based tasks through software robots with a purely web-based, cloud-native, RPA-as-a-Service platform for all users of the modern digital enterprise. Automation Anywhere released <b>Automation 360</b> (formerly known as Enterprise A2019) in October 2019. <b>Automation 360</b> was architected from the ground up to deliver a web-based user experience, it is the latest release of Automation Anywhere's flagship intelligent Digital Workforce platform—offers a choice between on-premises or cloud deployments.</p> <p>The Automation 360 platform consists of <b>five (5) key components</b> described below in a single platform.</p> <p><b>Discovery Bot</b> is one of the components of Automation 360 just recently added to the platform. Discovery Bot provides the ability to determine which processes are the best candidates for automation, their projected ROI, and can provide the automatic creation of those bots.</p> <p><b>IQ Bot</b> is the cognitive component of the solution that can extract data from scanned documents or document types where the data fields are in different places each time (eg invoices, POs). In the area of Capture – the key is data understanding – the ability to recognize unstructured and structured data and pulling it into the platform for use. This is the world of IQ Bot – our leading Intelligent Document Processing solution for this repeatable process.</p> <p><b>Robotic Process Automation (RPA)</b> is the core of our automation platform, we view it as Attended, or Unattended automation – that is – whether a human need to be in the loop of the bot that is running. Security comes into play here, as well as governance – must haves for enterprise-grade automation strategies.</p> <p><b>Bot Insight</b> is our integrated analytics platform. Our platform-native Bot Insight capability enables the data-driven decision making required to optimize bot performance at scale.</p>	

**AARI**-We recently released a fifth components to the platform which is AARI. Automation Anywhere Robotic Interface or AARI provides a simple, front-end interface for users to execute and interact with bots and applications. Use AARI from within applications such as Salesforce and within browsers and desktops for end-to-end process automation across the enterprise by connecting bots in the front and back offices.

Below is a high level diagram of the entire platform and the key components.



The main components of the solution include the Control Room, Bot Creator, and Bot Runners (attended and unattended).

### 1. The Web Control Room

Control Room acts as the brains of an enterprise's Robotic Process Automation (RPA) operation. Agencies use it to deploy, schedule, audit, and manage their digital workforce (bots) from a central location. The Control Room features predictive operational analytics through the built-in Bot Insight™ - the industry's most comprehensive, enterprise-grade RPA analytics platform. Bot-level operational as well as business analytics are presented in visual dashboards with actionable insights, such as bots with highest ROI, bots at risk of failure, and much more. Control Room also showcases a highly intuitive visual interface that delivers a seamless user experience across all devices. Tray notifications with numeric indications are available to warn, alert, or request action from users to quickly resolve issues.

### 2. Bot Creator, Development Client:

With Automation 360, Bot Creator is delivered via the web, working with common browsers such as Google Chrome, Firefox, and Internet Explorer. Bot Creator can be used by multiple personas

including the business user, IT user, and a developer. This simplifies deployments by having one Software product to manage for multiple user types.

### 3. Bot Runners, the Runtime Client:

The Control Room schedules and assigns tasks (Bots) to Bot Runners for execution. Bot Runners are runtimes that execute Bots on an operating system. Bot Runners can only execute once they are registered, identified, and authenticated by the Control Room. Once authenticated, they can be authorized to execute Bots, and can do so independently and asynchronously. Bot runners can be grouped, and can be dynamically allocated, offering a convenient option for scaling up. Our platform includes attended (triggered by a human) or unattended Bot runners (scheduled in the control room).

### Example Use Cases (Deployed Automations):

For public sector, Automation Anywhere has over 40 implementations in Federal, State & Local governments starting in 2013 including an Authority to Operate on Federal Civilian, DoD and Intelligence Community, Top Secret Networks. These customer implementations include automating processes in procurement, HR, IT, and mission. Additionally, we have customers that have deployed solutions such as “508 BOT”, “NOC BOT”, and “STIG BOT” The use case below on the DORA Bot is one of our greatest success stories.

For the **US Army**, the **business problem** was Contracting officers would manage critical and diverse portfolios of contract requirements for various customers, stakeholders and requiring activities. When a contracting officer completes a contract responsibility determination process, this tedious task could take up to an hour and was required to be done multiple times throughout the entire acquisition process. The Army on average issued approximately 250,000 contracts a year.

The solution was developed and deployed using Automation Anywhere RPA to create the Determination of Responsibility Assistant (DORA) Bot in 2 months. This reduced the amount of time it took Army Contracting Officers to determine contractor responsibility from as much as 2 hours to 2 min saving each contracting officer 312 hours and the US Army as much as \$29 million per year. This bot is now being adopted across the DoD as a standard. Below is an article on this successful deployment. <https://gcn.com/articles/2020/10/28/army-procurement-dora-bot.aspx>. Thousands of customers have deployed Automation Anywhere’s digital workforce throughout their organizations and have achieved significant ROI.

### Major Federal Government and Commercial Customers:

Included in Automation Anywhere’s 4000+ global customers include: The Department of Defense (DoD), including the Office of the Secretary of Defense, and the Joint Artificial Intelligence Center (JAIC), US Transportation Command (TRANSCOM), the Department of Health & Human Services (HHS) including the Centers for Medicare and Medicaid Services, the Food & Drug Administration Centers for Drug Evaluation and Research (FDA CDER), and the Office of Finance and Business Acquisition (FDA OFBA), Office of Budget, Centers for Tobacco Products, the Security & Exchange Commission, A Federal Reserve Bank, US Census, House of Representatives, Administrative Office of US Courts, Kansas City National Security Campus, the National Geospatial Intelligence Agency and Defense Information Systems Agency.

<p><b>Integration Service Partners for Federal Government:</b></p> <p>Automation Anywhere works closely with our more than 800 partners to start, accelerate and scale each customers Automation journey. These partners include a diverse pool of Systems Integrators, Small Business including 8(a), Woman-owned and Veteran-owned, Service-disabled veteran-owned, HUBZone small businesses and Alaskan Native companies.</p>
<p><b>IT Platform Requirements (on premise and cloud)</b></p> <p>Cloud: a modern browser</p> <p>On-premises: Control Room Server and a modern browser.</p>
<p><b>Federal agencies from whom Authority to Operate (ATO) has been obtained:</b></p> <p>National Geospatial-Intelligence Agency, CMS OSSO, CMS Finance Group, FDA CDER, FDA OFBA, HHS, DoD. Additionally, we have been granted (Authority to Proceed) ATPs for other civilian agencies.</p>
<p><b>Is the product FedRAMP certified?</b> In Process</p>
<p><b>Licensing Structure:</b> Annual Term License, Software as a Service. Customers can purchase al a carte (control room, Bot Creator, and a Bot Runner) or a platform (Digital Workforce Starter Kit)</p>
<p><b>Federal Agency Purchasing Vehicle(s):</b> GSA Schedule, NASA SEWP, CIO-CS</p>



Date:	02-0-2021
Company Name:	<b>Be Informed</b>
Contact Name, Email, Phone No.	Jim Wells, <a href="mailto:j.wells@beinformed.com">j.wells@beinformed.com</a> , 703-966-3042
Product Name:	Be Informed Intelligent Automation Platform
<p><b>Company Overview:</b> Be Informed was established in 2006 when the founders realized that the next frontier for productivity improvement was in automation of knowledge work. The company therefore developed an end-to-end intelligent automation platform to manage, automate and orchestrate long-lived cross-organization end-to-end business processes that span people, machines, and services, as well as functional boundaries. The Be Informed intelligent automation platform combines Dynamic Case Management, Enterprise Decision Management and Intelligent Orchestration in a single, integrated platform to seamlessly automate knowledge work and support both customers and staff in making complex decisions. With offices in Europe, United Kingdom and the United States the company has over live implementations in over 25 countries. Be Informed works predominantly through large partners like GDIT, Deloitte, BearingPoint and Mphasis for implementation of the Be Informed Intelligent Automation Platform.</p>	
<p><b>Product Features, including Security:</b> The Be Informed intelligent automation platform combines Dynamic Case Management, Enterprise Decision Management and Intelligent Orchestration of people, RPA bots machines and AI/ML services with third party capabilities for process mining and data analytics in one integrated platform. Product features include:</p> <p><b>A broad range of process styles:</b></p> <ul style="list-style-type: none"> <li>• Collaboration</li> <li>• Dynamic case management</li> <li>• Workflow/BPM</li> <li>• Batch processing</li> <li>• Straight through processing</li> </ul> <p><b>Capabilities to plan, schedule, manage orchestrate work of humans, bots and services:</b></p> <ul style="list-style-type: none"> <li>• Management of workloads, tasks &amp; activities</li> <li>• Schedule batch jobs &amp; orchestrate work of humans and bots</li> <li>• Risk based routing / skills-based routing</li> <li>• Manage time limits, time constraints, notifications and alerts</li> <li>• Electronic Dossier</li> <li>• Dynamic Activity Plan</li> <li>• Calendar management</li> </ul> <p><b>Capabilities to automate decisions and virtual assistants to support decision making:</b></p> <ul style="list-style-type: none"> <li>• Capturing business knowledge in model.</li> <li>• Classification, assessment &amp; diagnosis</li> <li>• Matching, monitoring &amp; prediction</li> <li>• Decision.</li> <li>• Calculations.</li> <li>• Intelligent forms.</li> </ul>	

**Capabilities to create, ingest and manage documents:**

- Management of documents in case context
- Automated classification of documents
- Scanning OCR/ICR
- Search and Natural Language Processing
- Annotating documents
- Document template management
- Intelligent generation of documents, emails, messages, dialogues
- Archiving
- Printing

Be Informed has an intelligent document generation capability that takes the outcome of the decision (and the contributing factors that led to this decision) and creates a personalized communication (can be a letter, can be a 42 page legal document, can be a tax return letter, can be a license certificate, can be a chat or even voice response).

**Capabilities to ensure compliance and operational reporting:**

- Dashboards
- Data warehouse integration
- Intelligent controls framework
- Compliance checkers
- Active controls
- Automated control tests
- Audit trail

**Security**

The Be Informed platform uses the security features of the infrastructure and adds a fine-grained authorization mechanism based on roles, rules and involvement to that:

**Be Informed uses JAAS for authentication and supports (out of the box):**

- UserID/password with users registered in Be Informed.
- Directory servers like MS Active Directory.
- Authentication based on Kerberos/SPNEGO.
- Authentication using X.509 client certificates.
- SAML Single Sign-on solutions.
- Two factor authentication solutions like Google Authenticator.

Credentialing is implemented in the using so-called permissions. Permissions offer a fine-grained mechanism to implement when a user can see information, perform a task, or edit data. They can be applied to even the smallest element of a Be Informed application. Access to protected resources and state-manipulating services is based on:

- Identity of the user.
- Memberships / roles of the use
- Relationship of the user with a case ('involvement').
- Type of resource/service requested.
- Type of data and state of the case (rule-based authorization).

**and finally the platform supports a broad range of integrations:**

American Council for Technology-Industry Advisory Council (ACT-IAC)

3040 Williams Drive, Suite 500, Fairfax, VA 22031

[www.actiac.org](http://www.actiac.org) • (p) (703) 208.4800 (f) • (703) 208.4805



- UI Services: SOAP, REST, JMS, FTP, MQ, File, SQL, Mail.
- RPA: Automation Anywhere, UiPath, Blue Prism.
- Authentication: Open LDAP, Active Directory, Kerberos, Spenego.
- DMS: Filenet, Documentum, Sharepoint, Opentext, Alfresco.
- ERP: SAP, Oracle, JD Edwards, MS Dynamics, Infor, Exact.
- Import/export: XML, OWL, BPMN, CSV, PDF.
- Chatbots and collaboration suites for voice/video/documents/mail/messages/chat.

#### **Example Use Cases (Deployed Automations):**

##### **Tax Administrations**

*Tax types:* payroll tax including social security and health insurance contributions, taxes such as income, company, sales, vehicle, property, value added, gambling, and others.

*Functionality:* online portals, tax advisor, online tax filing, levying and assessments, tax collection, business licenses, tax subject registration, fraud risk, inspection, audit, tax accounting, and information exchange (EOIR, CRS, CbC, FATCA and ETR).

##### **Social Security and Health Administration**

*Benefit types:* unemployment benefits, child support, maternity leave, student loans, sickness benefits, disability benefits, survivor benefits, state pension, welfare, health insurance and others.

*Functionality:* online portals, benefit advisor, online application, enrollment, assessment and processing, claims handling, case management, benefit payments, collections, objections, and complaints.

##### **Environmental Protection**

*Domain:* permits, trading schemes, reporting programs.

*Functionality:* online portals, permit advisor, online permit application, assessment and processing, emission registration, reporting, enforcement, inspection, fee calculation and collection, policy management.

##### **Intellectual Property Protection**

*Domain:* patents, trademarks, designs, ideas.

*Functionality:* online portals, online filing, formal and material assessment, search, account management, opposition, fee calculation and collection.

##### **Asylum and Immigration**

*Functionality:* online portals, immigration advisor, online application, assessment and permit processing, asylum case management, court procedures, objection and appeal, fee calculation and collection.

##### **Public Prosecutor**

*Functionality:* penalty requirement calculation service, parole decision service, dossier compliance check.

##### **Customs**

*Functionality:* import and export declarations, customs compliance checker (custom regulations, targeted financial sanctions, comprehensive financial sanctions and export controls).

##### **Land Registration / Public Records**

*Domain:* land records, ship records, airplane records.

*Functionality:* online portals, deeds processing, assessment and processing, records management, publication, fee calculation and collection.

### **Healthcare**

*Domain:* mental healthcare, clinical healthcare.

*Functionality:* online portals, triage, intake, diagnosis, patient registration, electronic patient dossier, clinical decision support system, work management, dynamic treatment plan / case management.

### **Social Housing**

*Functionality:* customer journey platform (new tenant, prolongation, leaving, repair and service requests, maintenance, nuisance), field service management.

## **FINANCIAL SERVICES**

### **Retail banking**

*Domain:* loans, mortgages, cards, trade finance.

*Functionality:* online portals, virtual advisor, online application, sales process management, proposition manager, interest and fee calculation, order management, KYC/CDD, customer service and ticket management, case management (life events), debt servicing, real-time regulatory oversight (ReTRO), real-time contract enforcement, compliance checkers.

### **Wholesale banking**

*Functionality:* underwriting, risk assessment, policy management, KYC/CDD and compliance.

### **Insurance**

*Domain:* car insurance, life and pensions, health insurance, marine insurance, cargo insurance, property and loss.

*Functionality:* online portals, virtual advisor, online application, sales process management, proposition manager, premium calculation, order management, (virtual) underwriter, claims handling (same day claims), connected insurance (pay as you use/IoT), prevention and advice.

### **Wealth management**

*Functionality:* virtual advisor, direct to investor investment platform, portfolio management.

### **Pension administration**

*Functionality:* proposal management, enrollment, pension scheme administration, contract and member administration, member processes, employer processes, payments and collections.

## **OTHER INDUSTRIES**

### **Logistics**

*Domain:* airlines, sea transport, airports, logistic services providers.

*Functionality:* cargo compliance checker (custom regulations, targeted financial sanctions, comprehensive financial sanctions and export controls).

### **HR process outsourcing**

*Functionality:* HR processes (classification, position management, staffing, recruitment, benefits, retirement, employee onboarding), customer service, ticket management, billing,

### **Legaltech**

**Functionality:** online mediation platform, virtual legal advisor, contract configurator, legal document generation, regulations and policy analysis.

**Major Federal Government and Commercial Customers:**

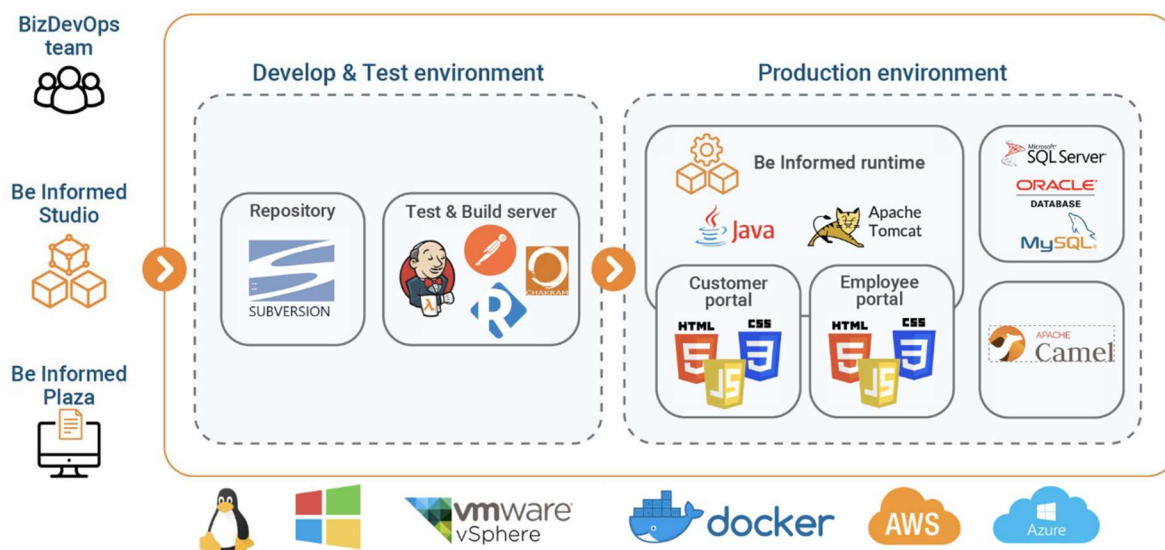
*United States:* Procter&Gamble, YRCI, GDIT/Office of Refugee Resettlement, M&G Prudential  
*United Kingdom:* Home Office, Tesco Bank, M&G Prudential, Hargreaves Lansdown, Deloitte.

*Europe:* European Patent Office, AXA, Schiphol Airport, KLM, ING Bank, Netherlands Environmental.

*Rest of the world:* FlyDubai, Tax authorities of 17 countries, Social security agencies of 5 countries, immigration services of 3 countries.

**Integration Service Partners for Federal Government:** GDIT

**IT Platform Requirements (on premise and cloud):**



The Be Informed platform can run from the AWS and Azure cloud. Platform can be containerized to enable lift from platform to platform.

**On-premise: The platform requires a standard infrastructure with:**

- Operating system: Microsoft Windows Server 2016, Red Hat Enterprise Linux 7, Ubuntu LTS, CentOS or Docker Engine.
- Apache Tomcat Application server.
- RDBMS: Oracle, Microsoft SQL Server, MySQL, PostgreSQL.

**Licensing Structure:** Transaction based pricing, Subscription fee

**Federal Agency Purchasing Vehicle(s):** Via GDIT

Date:	06/02/2020
Company Name:	<b>Blue Prism</b>
Contact Name, Email, Phone No.	LC Cook, <a href="mailto:Laurie.cook@blueprism.com">Laurie.cook@blueprism.com</a> , 301-332-9907
Product Name:	RPA Digital Workers

**Company Overview:** Blue Prism's enterprise Robotic Process Automation platform will:

- Deliver a 24/7 connected Digital Workforce across your entire network or wherever your business needs it most.
- Accelerate automations and improve customer experiences with RPA, advanced AI, and the scalability of the cloud.
- Gain instant access to a pool of intelligent Digital Workers with pre-integrated AI skills and the option for cloud, hybrid and on-premises deployments.

**Product Features, including Security:** Our Digital Workforce Operating System is comprised of:

- **Object Studio:** build process automations via drag/drop interface; reuse objects- the events and actions that build a process- across the business; changes permeate object and process libraries.
- **Digital Workforce:** Autonomous software robots; individual system credentials, no sharing; Enhanced with AI and cognitive capabilities called Intelligent Automation Skills.
- **Control Room:** Assign processes to Digital Workers; scale task and Digital Worker volume on demand; real time transparency of process proficiencies.

Available for both on-premise and SaaS deployments. (FedRAMP compliant/ IL5 through Project Hosts).

**Security and Governance:**

**Security:** Blue Prism partners with top-tier security technologies to implement best practices that guarantee data integrity by implementing strict user-access controls, multi-level change approvals, and a segregated interference-free processing environment.

**Federal Information Processing Standards (FIPS) Compliant:** Blue Prism is compatible with devices that enforce Federal Information Processing Standards (FIPS) compliant algorithms. The Blue Prism application server, interactive client, and runtime resources check to see if the security policy to use FIPS compliant algorithms for encryption, hashing, and signing is enabled on devices.

**Where the FIPS compliant security policy is enabled:**

- Non-FIPS compliant encryption schemes cannot be selected in the Encryption Scheme and Work Queue system settings on the interactive client.
- Non-FIPS compliant encryption schemes cannot be selected when configuring an encryption scheme for application servers. Application servers that are already configured with a non-FIPS compliant encryption scheme will not run and log an error.
- Any AutomateC commands that call user configured schemes that are not FIPS compliant cannot be run.
- Advisory messages display when attempting to log into interactive clients or start a runtime resources that reference a database with a non-FIPS compliant encryption scheme. It is still possible to log into such devices but processes and objects that reference a non-FIPS compliant encryption scheme will not run until the scheme is updated.

**Public Key Infrastructure (PKI) and Common Access Card (CAC):** Certificate-based, multi-factor authentication is a foundational security technique used by the Department of Defense to ensure the identities of entities within a PKI. Blue Prism provides integrated support for software-based PKI credential management via DOD authorized non-person entity certificates. This solution can be hosted on either hardware or cloud based virtualized environments and utilizes the Windows Smart Card Infrastructure for PKI management. Blue Prism's FIPS 140-2 compliant Credential Manager stores and handles credentials while the native login agent provides the Windows Logon/Logout/Lock/Unlock capability for workstations protected by CAC/PIV for access. This security architecture allows Blue Prism Digital workers to work in an unattended mode.

**Authority to Operate (ATO):** Agency Authorizing Officials (AO) within the DOD are responsible for making a risk-based decision to grant ATOs for the use of software on the systems within their domains. Blue Prism has pending and granted ATOs on a myriad of networks across the US government, DOD and Intelligence Community. Most significantly, the Commander of the Army's 7<sup>th</sup> Signal Command (CONUS) has authorized the use of Blue Prism software on all networks which fall within his purview.

**CyberArk Mission Assurance Option:** The integration of Blue Prism's digital workforce with the CyberArk Privileged Access Security (PAS) platform introduces a series of comprehensive controls, advanced threat analytics, and real-time operational insight into the privileged, non-person entity (NPE) activity for the enterprise. Through the CyberArk PAS integration, credential management becomes centralized affording greater protection from credential theft and ensures control and insight into all privileged workloads, namely providing critical protection and immediate-response options against related exploitation of a digital worker process.

**Federal Information Processing Standards (FIPS) Compliance:** FIPS 140-2 is a set of standards that describe document processing, encryption algorithms and other information technology standards for use within non-military government agencies and by government contractors and vendors who work with U.S. state and government agencies. Additionally, FIPS defines specific methods for generating encryption keys. To allow our product to be used by organizations that require or want to deploy according to FIPS standards, Blue Prism enforces FIPS compliance when installed in a Windows OS operating in FIPS mode. Users are not able to select non-FIPS compliant encryption algorithms when operating in FIPS mode. Additionally, non-compliant algorithms will be disabled when creating new encryption schemes. This increased security makes Blue Prism the ideal RPA solution for government agencies.

**Security and Technical Implementation Guide (STIG):** A STIG is a cybersecurity methodology for standardizing security protocols within networks, servers, computers, and logical designs to enhance overall security. These guides, when implemented, enhance security for software, hardware, physical and logical architectures to further reduce vulnerabilities. Blue Prism's DOD customers have created an Application Development STIG to ensure our software is installed and employed in a safe and secure manner. In other words, compliance, audit, and cybersecurity professionals can feel confident in choosing and implementing Blue Prism as their RPA platform.

**Data Encryption:** As stated above, Blue Prism only uses recognized encryption standards and includes Federal Information Processing Standard (FIPS) compliant options. The end user can choose the algorithm, generate the encryption keys, and dictate where the key is stored. Tools exist within the Blue Prism product to facilitate the rotation of encryption keys. User-configurable, FIPS



compliant encryption options are able to be applied to both data at rest and data in motion. Additionally, Blue Prism uses Microsoft's Secure String functionality that is built into the .Net framework to ensure the security of data stored in a non-persistent digital state, typically in computer random access memory, CPU caches, or CPU registers.

#### **Active Directory Integration:**

Using the .Net System.Security and System.DirectoryServices namespaces, Blue Prism provides a range of enterprise-strength capabilities by leveraging Active Directory (AD) Domain Services. Active Directory is used to manage and control user access to the Blue Prism platform in-line with existing security policies, which is the recommended approach for enterprise deployments. Furthermore, Active Directory can be used to provide inter-component message security.

**Audit Logs:** Blue Prism's audit trail is centrally stored and tamper-resistant, so no one can alter or falsify it. In the event of non-compliance or audits, this function delivers irrefutable non-repudiation. Audit Logs are used to record the following numerous actions performed by the runtime resources including; login/logout, changes to environment-wide settings and create/update/delete of business objects, processes and queues. When recording changes to processes and objects, all change details are captured to allow for comparison or rollback. Additionally, logs are created for each schedule and record the time and outcome for all tasks and sessions within that schedule.

#### **Example Use Cases (Deployed Automations):**

##### **US Army - Joint Munitions Command (JMC)**

Delivery Partner: *Wilson Perumal & Company, Inc.* (WP&C)

Contract Number: W52P1J-19-C-0053

Contract Amount: \$771,043.00

Performance Period: 27 September 2019 – 26 June 2020

Role: Prime Contractor

POC: Dean Hamilton, (650) 544-4771, dhamilton@wilsonperumal.com

WP&C has led successful RPA opportunity assessment, strategy development, and pilot implementation initiatives at Army Joint Munitions Command (JMC). During WP&C's AI/ML assessment at JMC, the firm identified several areas where poor data quality would limit the effectiveness of AI/ML. Most of JMC's data quality issues were created by human data entry errors. JMC desired to improve its data quality and reduce operating costs associated with these laborious error-prone business processes.

WP&C was first selected to advise JMC leadership on whether technology solutions would be appropriate to solve these problems and the firm recommended the use of RPA technology. WP&C was then selected to conduct an RPA assessment that included 1) identifying prospective problems that RPA could help to solve, 2) assessing the fitness of business processes for RPA and where business processes should be redesigned, and 3) evaluating the ROI and risks associated with various RPA opportunities. WP&C then developed an RPA strategy and a roadmap for implementing that strategy across the JMC enterprise. Finally, WP&C has led the development of three RPA solutions. The first is an RPA Digital Worker (DW) to correct rejects in munitions inspection data transferred between the Munitions History Program (MHP) system and the Logistics Modernization Program (LMP) system. These ongoing rejects cause munitions lots to be unavailable for shipment to Army units. Manual correction only focused on the backlog of rejects was estimated to take two man-

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years of effort. The second project created an RPA digital worker (DW) to automate the reconciliation of funded Army programs to determine if they are still active and valid. The original process was conducted three times per year and involved thirty analysts working full-time for two weeks. The third project was to create an RPA DW to amend contract information sent via email. This first phase of this project replaces 1 man-hour per week, but the process will be expanded to many other contract areas.

WP&C initially faced several major challenges with the introduction of RPA to the JMC enterprise. The first was a perception that RPA involved complex programming to create automated solutions. WP&C was able to effectively educate leadership at JMC, AMC, and PEO-EIS about the benefits of no-code/low-code RPA technologies. WP&C leveraged its experience to help JMC select the best RPA technology tool for their IT environment. Because many JMC RPA opportunities required the RPA DWs to operate in “unattended mode” to maximize the efficiency of the automation and because the DWs would need to coordinate access between multiple business-critical systems, the security and auditability of the RPA technology was a critical concern to JMC. WP&C helped JMC to assess and select a leading RPA technology from Blue Prism because of unique capabilities of that product to support JMCs requirements for highly secure DWs accessing multiple systems in unattended mode. WP&C also worked closely with Blue Prism, JMC G6 and Army NETCOM to first obtain a provisional ATO for the JMC to use the Blue Prism technology and more recently, for the wider use of the Blue Prism across all of the CONUS based commands under NETCOMs purview.

#### **US Air Force - Hurlburt Field 1SOW/Scott Field 437th SCOS/RSO SBIR Phase II**

Delivery Partner: Invoke Public Sector (formerly Serenity)

Contract Number: FA8684-20-C-1001

Contract Amount: \$930,000

Performance Period: 15 months (currently in month 6).

Role: Prime Contractor

POC: Steve Holt, Partner, 678-770-3572, [stephen.holt@invokeinc.com](mailto:stephen.holt@invokeinc.com)

Invoke Public Sector was awarded a SBIR Phase II contract by the Air Force Rapid Sustainment Office out of Wright Patterson AFB. This was the result of a successful down select and pitch day presentation.

Invoke Public Sector identified three major process areas for automation across two bases, Hurlburt Field and Scott Air Force Base. At Hurlburt, we are creating and auditing Flight Authorizations for the CV-22 squadron and performing data preparation and reporting for the air/ground space planning between Eglin and Hurlburt. There are 12 employees that currently perform these functions daily. RPA automation will provide a significant reduction in man hours required and result in more accurate and timely results.

At Scott AFB, the project seeks to automate the data synchronization between the master inventory systems and the base level inventory systems for the 437th Supply Chain Operations Squadron. There are currently 17 airmen that are dedicated to updating this data at 249 supply chain depots across the world. There is typically a 10,000-20,000 transaction backlog at any given time. Automation of this process provides a dramatic reduction in man hours and results in far more accurate downstream data for the supply chain depots to use in their operations. Backlog reduction and increased data quality are only two examples of the wide range of benefits the RPA automation will provide.

To date, Invoke has performed the RPA design work and readied a FEDRAMP compliant, IL5 level infrastructure using Microsoft's Azure Cloud to host Blue Prism's unattended digital workers and perform this automation work. The Air Force has recognized the technology's significant promise and strategic value and has initiated the process of obtaining an Air Force-wide ATO. The most significant obstacle so far in the project has been in obtaining Non-Person Entity (NPE) access to the various Air Force systems. At the end of this project Invoke expects to have returned at least 30,000 man-hours to the Air Force annually. This will free Air Force personnel from tedious, low cognitive effort tasks so that they can shift to higher order work and provide a more critical impact to the Air Force mission.

### **US Marine Corps (USMC)- Marine Corps Community Services**

Delivery Partner: Reveal Group

Contract Amount: \$500,000

Role: Prime Contractor

POC: Michael Gonzalez, 703.432.2936, Michael.Gonzalez@usmc-mccs.org

MCCS sought to explore RPA technology to automate mundane and repetitive tasks while upholding stringent security requirements. During a 6-week PoC project, Reveal Group automated two processes from the Finance team using Blue Prism. The processes were put through an accelerated delivery lifecycle to produce production-grade automations while creating high quality documentation. Key financial systems were automated through both thin and thick client applications while adhering to all security requirements.

The Reveal Group Platform Design team worked with the MCCS resources including Cyber Security to fast-track an ATO to allow for a tactical installation of Blue Prism to enable the PoC build, testing and demonstrations to key stakeholder and prove the value of RPA. In addition to automating the processes, Reveal Group educated MCCS on best practices with respect to Operating Model / CoE implementation, process assessment and building a scalable and secure Blue Prism Platform. This resulted in a second contract being awarded for a Pilot project.

Upon the success of the PoC, MCCS re-engaged Reveal Group for a Pilot project consisting of 3 workstreams. MCCS sought to build an RPA Program including CoE with internal capability to identify, build, test and sustain Blue Prism automations.

**Platform Design and Build:** The Reveal Group Platform Design team worked with MCCS resources from Cyber Security, Infrastructure, Windows and Application teams to gather requirements to make key architectural decisions. Reveal Group produced a Solution Architecture Design (SAD) document outlining a tailored design of an MCCS Blue Prism Platform to serve as the scalable, secure and resilient RPA platform for all future process automation. This document has been approved by all required MCCS resources and has enabled the ATO process to begin. There were many obstacles encountered, particularly around MFA and CAC requirements whereby Reveal Group were able to provide guidance towards a sustainable solution. The MCCS Blue Prism Platform is currently being built with configuration and testing to begin in June.

**Training and Mentoring:** Reveal Group resources are currently training selected MCCS resources in Blue Prism before moving into a mentored wave where Reveal Group resources will provide hands-on mentoring through a real-life automation.

**Blue Prism Development:** In parallel to the mentored wave, Reveal Group developers will automate a selection of use cases to accelerate the MCCS RPA program. All Reveal Group resources on the two

MCCS projects were Blue Prism Accredited Developers, Professional Developers, Solution Designers, Robotic Operating Model Architects, Platform Architects and Installation Engineers.

**Major Federal Government and Commercial Customers:** Commercially Blue Prism's digital workforce software currently staffs more than 1,600 enterprises including Boeing, Cigna, Johnson & Johnson, Coca-Cola, Pfizer, Lockheed Martin, Walgreens, Kaiser Permanente, Fannie Mae, LabCorp, ADP and Prudential, among others.

Our DOD and US Federal customers include the Army, Navy, Air Force, US Marine Corps, US Coast Guard, Federal Bureau of Investigation, and the Departments of Homeland Security, Transportation, Interior, Health and Human Services.

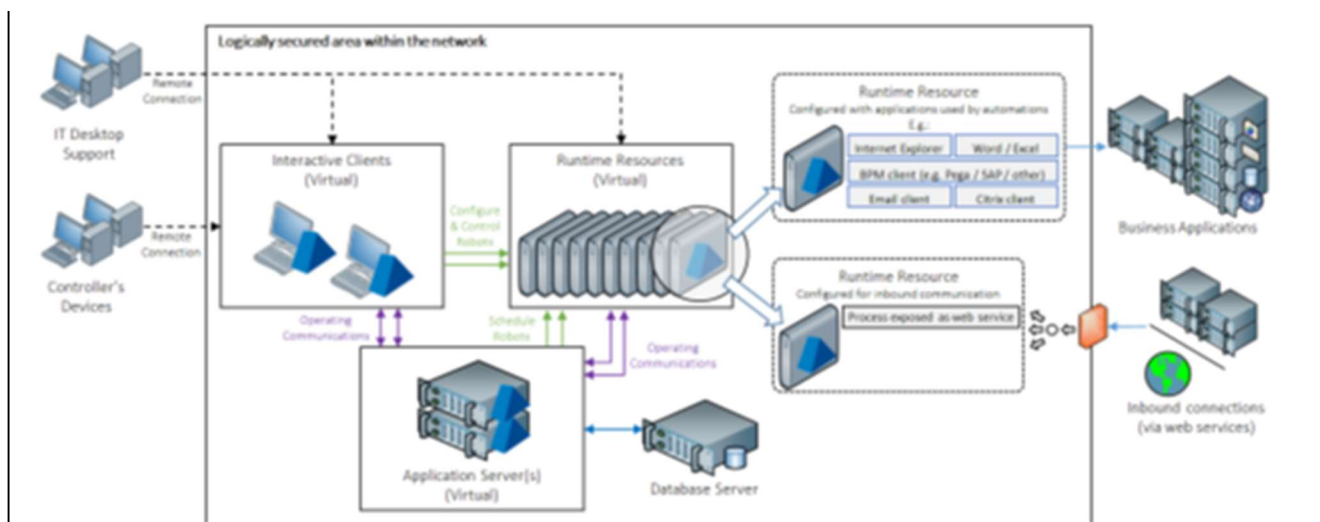
**Integration Service Partners for Federal Government:**

**Large System Integrators:** IBM, Deloitte, Accenture, EY; KPMG

**Small System Integrators:** Invoke, Reveal, Wilson Perumal & Company; Synaptein, Horizon

**IT Platform Requirements (on premise and cloud):**

<u>Blue Prism Component</u>	<u>Minimum Recommended Requirements</u>
<b>Interactive Clients (Controlling and Monitoring)</b>	<ul style="list-style-type: none"> <li>• Intel Processor</li> <li>• 2GB RAM</li> <li>• Minimum 10GB free disk space (after install of Operating System and standard software)</li> <li>• Windows 7 SP1, 8.1, 10 Anniversary Update. 32-bit or 64-bit versions.</li> <li>• Windows Server 2008 R2 SP1, 2012, 2012 R2, 2016. 64-bit versions only.</li> <li>• .NET Framework 4.7</li> </ul>
<b>Interactive Clients (Development)</b>	<ul style="list-style-type: none"> <li>• Interactive Clients (Controlling and Monitoring) plus:</li> <li>• Access to all in-scope applications</li> </ul>
<b>Runtime Resources (Robots)</b>	<ul style="list-style-type: none"> <li>• Intel Processor</li> <li>• 2GB RAM</li> <li>• Minimum 10GB free disk space (after install of Operating System and standard software)</li> <li>• Windows 7 SP1, 8.1, 10 Anniversary Update. 32-bit or 64-bit versions.</li> <li>• Windows Server 2008 R2 SP1, 2012, 2012 R2, 2016. 64-bit versions only.</li> <li>• .NET Framework 4.7</li> <li>• Access to in-scope applications</li> </ul>



**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Agency Authorizing Officials (AO) within the DOD are responsible for making a risk-based decision to grant ATOs for the use of software on the systems within their domains. Blue Prism has pending and granted ATOs on a myriad of networks across the US government, DOD and Intelligence Community.

**Army** – The Commander of the Army's 7<sup>th</sup> Signal Command (CONUS) has authorized the use of Blue Prism software on all networks which fall within his purview.

**Pending ATOs** – Navy, Air Force, US Coast Guard, US Marine Corps, Veterans Affairs

**Is the product FedRAMP certified?** Blue Prism's digital workforce software is available for use on-premises, in the cloud, and in hybrid environments.

Our software may be used with a FedRAMP compliant cloud service offering in conjunction with our partner - Project Hosts. Project Hosts is a cloud solutions provider (CSP) that specializes in deploying, managing and securing Windows and Linux based applications in the Microsoft Azure cloud. They implement the most rigorous cloud security standards including FedRAMP DoD CC SRG IL 5, FedRAMP Moderate, HIPAA, HITRUST, NIST 800-66, and ISO 27001.

**Licensing Structure:** Blue Prism has one SKU and licenses our Digital Workers (DW) based on the number of processes/time to run. It is not linear, meaning one DW can be assigned to multiple processes hence a lower cost of ownership; not one DW per process. All licenses are fully inclusive of DEV/TEST/PROD.

**Federal Agency Purchasing Vehicle(s):** Blue Prism digital worker software is available via the ITES CHES, GSA Schedule 70, and NASA SEWP GWACs as well as via numerous open market resellers including resellers with small business type(s)/certifications(s) such as SDB, 8(a), HUBZone, SDVOSB, WOSB, etc.

Date:	06/08/2020
Company Name:	<b>Epiance Software</b>
Contact Name, Email, Phone No.	Sujoy Ray, <a href="mailto:sujoy.ray@epiance.com">sujoy.ray@epiance.com</a> , +91 9900288877
Product Name:	Epiplex500
<p><b>Company Overview:</b> Epiance Software develops and markets a suite of enterprise software products that are leaders in the following software product categories: Process Discovery &amp; Improvement, Learning &amp; Knowledge Transfer, Electronic Performance Support, Robotic Process Automation. The company was founded in 2001 and has over 800 plus customers worldwide. The company is considered a technology pioneer in the market and our customers span multiple verticals, including BFSI, Manufacturing, Retail, Logistics, ITES, Automobile and Government sectors. Epiance has operations in Europe, the Americas, Japan, APAC, India and the Middle East through a network of over 40 partners. Epiance customers include Citibank, AmBank, ABN AMRO, RBS, Aetna, The Hartford, Accenture, Capgemini, Volkswagen, Honda, Mitsubishi, Microsoft, IBM, Wells Fargo, Credit Suisse, McKinsey, CGI, AIG, Genpact, E&amp;Y, Australian Dept of Justice to name a few. Epiplex500 is an industry-leading enterprise application software suite that helps businesses manage their IT-driven business process transformations successfully. Epiplex suite of products deliver a combination of process automation, knowledge transfer, performance support, and process improvement capabilities that reduce costs, increase productivity and improve business performance.</p>	
<p><b>Product Features, including Security:</b> Organizations spend millions of dollars on large scale business transformations with the expectation of effective end-user utilization and rapid return on investments. Very often the actual ROI on such investments fall woefully short of the projected ROI benefits. Epiplex helps on the following;</p> <ul style="list-style-type: none"> <li>• Discovering and mapping every process and variant across your organization</li> <li>• Analyzing and recommending the best processes for automation</li> <li>• Identifying Key Process metrics like Process complexity, Bot Development time, AHT, Error Rate, End-User Productivity</li> <li>• Identifying Process Bottlenecks, Productivity and Continuous Improvement opportunities</li> <li>• Low-end user adoption rates, frequent change in the business environment result in sub-optimal usage of IT applications</li> <li>• Effective knowledge management via digital learning and certification</li> </ul> <p><b>How Epiplex Works in terms of Features and Product Benefits:</b></p> <ul style="list-style-type: none"> <li>• Capture SME As-Is process as and when they are performing the process painlessly and without intrusion.</li> <li>• Turn the capture file, with a click of a button, into documents like PDD's, BRD's, SOP's etc. in multiple formats like Word, html, PDF, Visio, Excel, PPT, BPMN etc.</li> <li>• Also can create process metrics details with the metadata of applications, screens and fields that were captured.</li> <li>• Create simulations (Show, guide, test modes) for effective end user training.</li> </ul>	



- Totally desktop product with no server component. Epiplex plug and play version allows the whole capability without the need for administrator driven install. Data absolutely secured within end customer IT environment. No SaaS component offerings.
- The end user content can be distributed to any number of end users. The content is not licensed.
- Epiplex can be used to capture on ANY underlying application landscape.
- Make the AS-IS and TO-BE process capture and documentation (SOP, PDD, BRD etc.) very accurate, leak proof and quickly with a click of button for RPA, Transition and Transformation projects.
- Reduce process capture and documentation time up to 70%.
- Reduce time to competency of end users by up to 50% with simulations.
- BOT Creation time gets reduced by 50%.
- Reduce error rates on end-user training by 40%.
- Epiplex can be used with any underlying Application landscape including in Citrix environment, green screen applications, home grown applications etc.
- Capture once, publish multiple outputs with a click of a button is the primary value proposition for any process automation projects.

**Example Use Cases (Deployed Automations):** Process Automation Case Study for one of the largest banks (Fortune 500)

**Below are the main challenges while automating the process:**

- Accurate and in depth capture of applications running in Citrix environment
- Manual and time consuming creation of BRD and SOP documents
- Building AS IS and TO BE Process documents
- Retaining Tacit Information from SME's
- Documenting all the process variations
- Dissemination of knowledge for the To Be Process

#### **Epiance Solution**

Our RPA documentation kit enabled the client to generate all the BRDs that was required to be created for the automation project. These detailed BRD documents helped the client to build bots rapidly. Using our RPA Documentation Kit the client was able to capture the AS IS process in a highly efficient and effective manner. Our product also provided an intelligent filter and masking feature which allowed client to automatically secure confidential data and images.

As the Bank began implementing automation projects using 3rd party automation tools, they found it extremely complicated and time consuming as the AS IS Process details for automation development was missing. They started looking for a comprehensive solution which could capture the AS IS process and generate BRD's SOP's.

Most of the tacit knowledge was retained by expert agents and all the process variations were not documented. This made it more difficult to capture the AS IS Process accurately. During their research for a rapid and automated solution for documenting AS IS and TO BE processes they came across our Epiplex product and after a detailed evaluation the Bank decided to use Epiplex for their documentation needs.



Once the process was automated, our RPA Process Documentation kit was used to capture the TO BE process and create documents and simulations. These simulations helped in rapid rollout of the new TO BE automated process. Some of the key benefits the client realized include:

- The Capture tool of Epiplex enabled even non-technical process experts to easily and quickly capture business processes from a wide range of applications including applications running under Citrix.
- Subject matter experts can add their tacit knowledge also to the capture file which is subsequently converted into knowledge transfer objects such as simulations and documentations.
- With Batch mode content Generation BRDs and SOPs were created with no time.
- Automated capture of all the process variations.
- Client could reduce the time to create BRDs and the overall BOT creation time.
- By deploying the capture for a longer period of time, most of the process variations could be captured accurately.
- Once the process was automated, the RPA Process Documentation Kit was used to capture the TO BE Process and create documents and simulations. These simulations can help in rapid roll-out of the new TO BE Process.
- The remote capture capability eliminated the need for onsite travel and the process capture could be remotely administrated.

#### **Epiance Value Benefits**

- Wide Application coverage with Citrix support.
- Accurate and in-depth process capture.
- Rich workflow support with BPMN objects.
- Automated BRD and SOP creation from process capture file.
- Faster change management to create TO BE Process.
- Centralized Content Management system to disseminate TO BE Process.

#### **A few examples of the projects executed in past 5 years:**

Process Transition, RPA BRD Documentation, Process Identification and Process Improvement – **Genpact** (Globally)

RPA BRD Documentation, Process Documentation, AS-IS and TO-BE Process, Process Improvement – **IBM** (Globally)

Process Documentation and Process Improvement – **Credit Suisse**

Process Transition, RPA BRD Documentation, Process Design Documentation – **Wells Fargo**

Process Automation, AS-IS and TO-BE, Process Discovery and Process Improvement – **Mckinsey, Genpact, IBM, Wells Fargo, Credit Suisse, E&Y, HSBC, Kimberly-Clark, Sophra Steria, Cognizant, Accenture**

Learning and Knowledge Transfer – **AmBank, ABN-AMRO, Australia Department of Justice, Govt. of Malaysia**

**Major Federal Government and Commercial Customers:** US Govt (10 years back on Learning and Knowledge Transfer), Govt. of Australia, Govt. of Malaysia, AmBank, Genpact, IBM, Wells Fargo, McKinsey, Credit Suisse, Kimberly-Clarke, E&Y, Standard Bank, ANZ Bank, Volkswagen, Honda, Pfizer, CITCO, ADP, DXC Technology, HSBC

**Integration Service Partners for Federal Government:** Brilliant (US Federal Client – We have sign-up in 2020)

**IT Platform Requirements (on premise and cloud):** On-Premise Deployment, Attached system requirements.

**Licensing Structure:** Annual Subscription License, On-Premise and Desktop Software

Date:	2/18/2021
Company Name:	<b>Genesys Telecommunications Laboratories, Inc.</b>
Contact Name, Email, Phone No.	David York, <a href="mailto:David.York@genesys.com">David.York@genesys.com</a> , 719-439-9502
Product Name:	Genesys
<p><b>Company Overview:</b> Genesys is the global omnichannel CX and contact center solution leader. The Genesys CX Platform and solutions help companies engage effortlessly with their customers across all touchpoints, channels, and interactions to deliver differentiated customer journeys while maximizing revenue and loyalty. Genesys has dozens of offices across North America, Latin America, Asia Pacific, Europe, the Middle East, and Africa. With over 5,500 employees across the globe, Genesys is the largest privately held software company in Silicon Valley and is one of the ten largest private software companies in the world.</p> <p>Genesys is 100% focused on contact center software, delivering hardware-independent and real-time interaction solutions to small-, medium-, and large-sized businesses.</p> <p><b>Proven Expertise:</b> Genesys provides a foundation for long-term success with the Genesys CX Platform and helps companies convert innovative ideas into measurable business results. Genesys combines strategic business insights with hands-on, practical experience gained from thousands of implementations. The company can help organizations get to market faster, with higher workforce productivity and lower regulatory risk, to deliver new levels of CX differentiation. Genesys helps build upon a company's existing foundation to gain operational efficiencies and transform customer journeys. Genesys works in partnership with the company's team to transfer knowledge, skills, and confidence, offering robust technical knowledge resources and flexible training options to increase team self-sufficiency and the ability to operate and improve the Genesys environment. Over 11,000 successful customers tell the story best—representing nearly half of all Fortune 500 companies as well as a range of industry leaders. The world's leading CX brands rely on Genesys every day to manage their customer experience.</p>	
<p><b>Product Features, including Security:</b> Genesys provides solutions designed for government agencies and organizations that require scalable and tailorable contact center operations. Part of our portfolio includes a FedRAMP-certified cloud-based solution, and it provides a full range of technology capabilities to customize and operate contact centers of any size, supporting organizations' security and privacy requirements. Genesys provides a comprehensive set of technology for contact centers to serve its customers. Our offerings are fully integrated technology stacks that can meet the needs of any size agencies. AWS Data Centers (Geo-Redundancy): availability zones, load balance, data storage, computational platform, physical security, availability, audit trail, scalability, network partitioning, access control work partitioning, access control.</p> <p><b>Genesys native RPA focused technologies include:</b></p> <ul style="list-style-type: none"> <li>• RPA to improve accuracy of understanding questions and providing responses.</li> <li>• Workforce Engagement Management uses RPA to select the best forecasting methods to accurately predict staffing.</li> </ul>	

- Predictive Routing uses RPA to match the proper agent to the citizen without having to send them through a complex IVR.
- Predictive Engagement uses RPA to ensure citizens accomplish the intended outcomes and will engage when the outcomes are in danger of being met.
- Interaction Analytics monitors the contents of all interactions to uncover trending and areas for improvement in the contact center.

Genesys strives to introduce intelligent automation & AI over multiple areas, including:

- Standardized multi-site “virtual” call/contact centers.
- Multichannel contact points with a single solution.
- Voice and web service.
- Email management.
- Web chat live help service.
- Universal skills-based routing.
- Position Environment for multimedia virtual contact center.
- Intelligent multichannel load-balancing across sites.
- Integrated CRM “Soft-phone” and “Screen-pop” for customer service and productivity.
- Web service management and tracking for third-party system integration.
- Best in class contact center reporting and workforce management tools.

**Example Use Cases (Deployed Automations):** The growing volume of customer interactions has led to widespread use of bots to handle repetitive or mundane tasks, particularly in self-service. Bots combine artificial intelligence (AI) with predictive routing, orchestration and agents to engage customers in natural conversations using voice, text or microapps—across all parts of your organization so that you can:

- Improve your machine-learning capabilities and add the human element at the right time.
- Free up human agents to engage with customers on more challenging issues.
- Automate identification and verification of customers.

Automation connects departments, systems and people to build a foundation for innovation. It gives you detailed reports on how you spend resources. And it captures, prioritizes, routes, escalates and tracks any business process, end to end, enabling you to:

- See when a task is assigned, resolved, who worked on it and how much time was involved.
- Archive data from every step of each process for a complete picture of each case.
- Capture what you learned from each interaction.

Every contact center environment has its flaws. Automation can help. It carries context from one channel to another, increases self-service rates and decreases average handle time. It resolves customer problems faster while reducing costs. See how efficiently you can:

- Analyze call data for continuous improvements, such as optimizing containment rate.
- Drill down into actionable data to recognize trends and quickly find trouble spots.
- Reduce repeated calls, improve first contact resolution and reduce costs.

**Major Federal Government and Commercial Customers:** Genesys has a number of Federal customers using Genesys Technology and the Genesys Product suite. The customers are using

various portions of the RPA capabilities that Genesys offers. Names available upon request as customer request pre-approval before submitting their names.

**Integration Service Partners for Federal Government:** MAXIMUS, AT&T, Verizon, Lumen, SAIC, SII, SID, GTS, ConvergeOne, Avtex.

**IT Platform Requirements (on premise and cloud):** Genesys technologies operate in the cloud and on premise. In the Cloud, Genesys generally communicates with non-Genesys systems via published APIs. There would be a general expectation that any agency systems that we would work with would have web services that we could utilize. With cloud based solutions, the heavy lifting that traditionally would belong to IT now becomes the responsibility of the cloud vendor. End users of the platform generally only will require a computer with a modern web browser for interfacing. On-premise, Genesys is able to communicate with the aforementioned APIs along with working with legacy connectivity options like open database connections and Java database technologies. Genesys premise-based technologies work with Windows and Linux and are right sized to meet the capabilities being consumed. The size and complexity of the customer needs could be as small as a single appliance to hundreds of servers to meet the most complex, large deployments. The agent user interfaces are accessed via modern web browsers.

**Federal agencies from whom Authority to Operate (ATO) has been obtained:**

Existing ATOs are <https://marketplace.fedramp.gov/#!/product/maximus-genesys-engagement-platform?sort=productName>

**Is the product FedRAMP certified?** Yes

**Licensing Structure: Subscription:** Per interaction basis for RPA related interactions, per port basis on Interactive Voice Response, per agent on non-automated service

**Federal Agency Purchasing Vehicle(s):** GSA schedule 70, Automated Contact Center Solutions (ACCS) SIN 132-20/561422, ITES - SW2, NASA SEWP as well as additional state and local contract vehicles. List is available upon request.

Date:	February 1, 2020
Company Name:	<b>Hyperscience</b>
Contact Name, Email, Phone No.	Brendan MacCarthy, <a href="mailto:bmac@hyperscience.com">bmac@hyperscience.com</a>
Product Name:	Hyperscience

**Company Overview:** Hyperscience is a technology company blazing a new path in enterprise automation with a reimagined approach to building and powering processes. Our technology helps enterprises build and run document-based processes with Machine Learning-based technology that reduces manual errors, increases high and low-skill employee productivity, and eliminates the need for costly transformation. The Hyperscience Intelligent Document Processing solution has been implemented at some of the world's leading financial services, insurance, healthcare and government organizations, including TD Ameritrade, QBE Insurance Group Limited and Voya Financial, helping them lower costs, reduce error rates by 67% and increase employee capacity by 10x.

Since its founding in 2014, Hyperscience has raised \$190 million in venture capital (VC) funding with headquarter offices in New York City. It is funded by leading investors and VCs including Bessemer Venture Partners, Tiger Global Management, Stripes and FirstMark Capital. In Q1 2020, Hyperscience achieved record results, including over 300% year-over-year revenue growth and over 30% surge in March platform usage.

#### **Product Features, including Security:**

**Classification:** Unlike solutions that require explicit pre-processing pipelines to attempt corrections for adverse document conditions, Hyperscience has built its models to be robust to these every day, real world conditions. Whether structured or semi-structured documents, Hyperscience can classify them. Government agencies choose us for their classification needs because of the following capabilities:

**Custom taxonomy support:** With Hyperscience you are in full control of your document classification taxonomy allowing for full flexibility in defining your workflows.

**Improving coverage over time:** Other solutions require expensive development and configurations to achieve an acceptable classification error rate. Our models can identify opportunities for increasing classification coverage — no development needed.

**Extraction:** To accurately extract data from your documents, our software uses a suite of proprietary Machine Learning algorithms designed for data extraction in enterprise use cases. This allows us to offer you up to 99.5% accuracy with very little human intervention. Some of the core features that allow us to provide these industry-leading outcomes are:

**Proprietary neural networks:** We have built and trained our own neural networks with proprietary datasets of real-world documents in order to equip our technology with the ability to accurately extract both printed and handwritten text.

**Smart extraction:** The solution can read the content in a field without extracting the field name or description and without human intervention, allowing for easy template setup, when needed, and the ability to find potential layouts.



**Reading outside the box:** Core extraction capabilities ensure we capture everything you need to extract from a document, even if the text or handwriting is outside the field box. For example, the solution expands the cropped image if it sees a Social Security Number but can only find 8 digits.

**Human-in-the-loop:** Accuracy makes all the difference. In Hyperscience, you set your target accuracy SLA and the machine employs human intervention to self-calibrate and ensure compliance to those SLAs while improving automation rates.

To do this, the application features:

**Supervision:** Our built-in human-in-the-loop module allows for seamless handoffs for manual task completion when the model detects it may not reach your accuracy SLA on its own. Improved automation over time: The solution consistently trains a separate neural network based on what it processes. This allows it to get better at knowing when our models are correct and when the solution requires human intervention.

**Quality Assurance:** Hyperscience has the ability to continually check the quality of the machine's transcriptions. To do this, Hyperscience features Quality Assurance features that allow it to get better at determining when it should send tasks to a human and to report on the machine's performance.

**Input/Output:**

**Connectors:** A wide array of input and export connectors and our REST API allow you to integrate our solution with your upstream and downstream solutions.

**Plug-in API:** No document processing solution exists in a vacuum. While we offer a number of input and export connectors, you can also use our API to quickly integrate the application into your system and let it read files from multiple locations. This helps us minimize any work done by your software engineers or other resources.

**Reporting:** Visibility into performance of both machine and manual data extraction are critical to building trust and optimizing a document processing workflow. Out of the box, Hyperscience reports on automation and accuracy levels, throughput and usage information along with detailed operational metrics to enable management of document processing workflows.

**Security**

**Data Protection:** Our solution supports TLS encryption for inbound and outbound connections. It is compatible with a variety of commercial file storage and databases, and can be configured to apply TLS encryption to protect against man-in-the-middle attacks.

**Data Privacy:** As our software is deployed on-prem, you maintain full control of your data. This also allows you to apply your own security controls at the network, infrastructure and storage layers.

**User Authentication:** We support a variety of authentication options out of the box to allow flexible customization and integration, including username/password combination, Lightweight Directory Access Protocol (LDAP), Security Assertion Markup Language (SAML) and OpenID Connect (OIDC).

**User Authorization:** We provide flexible management of permission sets that allow customers to adopt role-based access control. This helps ensure only authorized users are able to perform actions oriented to their role and job responsibilities.

**Example Use Cases (Deployed Automations):** Improving citizen response times: While it's mandatory to service citizens correctly, doing so can take time, especially when it comes to dated,

paper-driven processes like invoice processing. Our government customers use Hyperscience to process documents - like claims documentation - in order to respond to and service citizens.

**Record management compliance:** With mandates to store and transfer all records in an electronic format over the next few years, government agencies across departments have had to take a look at document processing solutions to remain compliant. Our customers use Hyperscience to digitize paper documents that now need to be stored electronically.

**Government application automation:** No matter the agency, application processes can be paper-heavy. So when you need to digitize your records, you need technology that can read those applications and supporting documentation, know what they are, extract the information and translate it into data that can live in your systems of record. Our customers use Hyperscience to process application documentation with imperfections like handwriting.

**Integration Service Partners for Federal Government:** IBM, Aptive

**IT Platform Requirements (on premise and cloud):** Hyperscience can be installed on premise or in a private cloud and on Linux Virtual Machines (VMs) using Docker containers. The application is accessible through a web app and API. It requires an application database, load-balancer, and a shared file store. Infrastructure requirements will depend on the volume that you intend to process with the application. Please contact us for more details on requirements.

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Department of Veteran's Affairs

**Is the product FedRAMP certified?** The Hyperscience platform provides our clients with the flexibility to deploy and run on any infrastructure, whether that is on premise or in a commercial cloud provider. We are 100% infrastructure agnostic. Our government clients today are deploying us in both AWS GovCloud and Azure GovCloud in FedRAMP Moderate approved environments.

**Licensing Structure:** Hyperscience is sold as an annual recurring software license based on anticipated page volume for all use cases during the term.

Date:	06/10/2020
Company Name:	IBM
Contact Name, Email, Phone No.	Griffin Marge, <a href="mailto:griffin.marge@ibm">griffin.marge@ibm</a> , 202.604.6305
Product Name:	Datacap
<p><b>Company Overview:</b> IBM produces and sells computer hardware, middleware and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. Our Digital Business Automation group focuses on supporting our clients in their automation efforts.</p>	
<p><b>Product Features, including Security:</b> IBM Datacap is a cognitive, end-to-end data and document capture solution, for multi-channel document acquisition (from scanner, fax, email, mobile, file system, content repository). Datacap helps significantly reduce labor and paper costs, deliver meaningful information for better and faster decision making, and improve the responsiveness of customer service.</p> <ul style="list-style-type: none"> <li>• Reduce data entry costs through document workflow and process by 70%+.</li> <li>• Unlock the hidden insights and valuable data from content.</li> <li>• Leverage next-gen AI capabilities to recognize document types regardless of documents form or structure.</li> <li>• Choose on-premise or on the cloud.</li> </ul> <p><b>Key Capabilities</b></p> <ul style="list-style-type: none"> <li>• Manages the process of gathering content, extracting the data and pushing the documents and data into content management, workflow and line of business applications.</li> <li>• Presents a unified user interface (UI) and data environment backed by a single experienced provider, rather than a multi-vendor, multi-UI environment, with a range of support services to wade through.</li> <li>• Provides customers with the ability to extract structured data from unstructured content to support business processes.</li> <li>• Uses a combination of advanced imaging, Watson analytics, and machine learning capabilities to understand documents and to identify and extract information automatically.</li> <li>• Ability to pull data out of content and flexibility to adapt and extend to meet the needs of highly complex customer use cases.</li> <li>• High availability and enterprise-grade reliability, security, and disaster recovery.</li> </ul> <p><b>Example Use Cases (Deployed Automations):</b></p> <ul style="list-style-type: none"> <li>• <b>Claims Initiation.</b> Eliminate data entry errors and document loss, gain flexibility in multiple places and to multiple systems with no delay in image or information retrieval, and accelerated time to value by implementing a managed service offering.</li> <li>• <b>Information Accessibility.</b> Improve customer information accessibility by better managing workflows to capture, store and exchange customer information across core banking systems. Reduce turn-around time by simplifying and iterating account-opening and remittance processes.</li> </ul>	

- **Customer Insights.** Improve servicing of customers and offer greater flexibility at time of contract by understanding the entire account and revenue generation through an aggregate view of inventory.

**Major Federal Government and Commercial Customers:** US Air Force, VA, Bank of Montreal, Turkcell, PowerSouth Energy Cooperative, BBVA

**Integration Service Partners for Federal Government:** Broad Partner Ecosystem

**IT Platform Requirements (on premise and cloud):** Can run on premise, on private cloud or on public cloud (AWS, IBM Cloud, Azure, Google Cloud).

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Cannot provide.

**Licensing Structure:** Varies

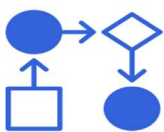
**Federal Agency Purchasing Vehicle(s):** Broad Partner Ecosystem

Date:	03/04/2021
Company Name:	IBM
Product Name:	Process Mining

**Product Features, including Security:** Enterprises need a way to visualize how processes really work to identify which activities are true bottlenecks. With IBM Process Mining, You Can:

- **Discover** end-to-end processes.
- **Identify** bottlenecks and quantify process improvement benefits.
- **Simulate** process enhancements and clarify potential ROI.
- **Monitor** and optimize processes over time.

#### DISCOVERY



Automated algorithms for:

- Process Discovery
- Task Mining
- Business Rules Mining
- Multi-Level Process Mining

#### ANALYTICS



Dashboards and event flows for:

- KPI and Cost Checking
- Compliance Checking
- Automation outcomes
- Root Cause Analysis

#### DIGITAL TWIN



Create a **Digital Twin** to:

- Study what-if scenarios
- Simulate improvements
- Calculate ROI

### Key Capabilities

**Process Discovery:** Discover the links between tasks, create more detailed process models.

#### Task Mining

- Analyze desktop actions by people to see how they execute their jobs, possibly lead to creating bots / digital workers.
- Hotspot Detection
- Look for bottlenecks in processes.

**Decision Mining:** Reverse engineer how decisions are taken.

**Process optimization:** Propose improvements in process.

American Council for Technology-Industry Advisory Council (ACT-IAC)

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**Accelerating Government Mission Outcomes Through Collaboration, Leadership and Education**

**Simulation:** Change process / data, evaluate impact on KPI's by re-running historical data

**Typical Business Example: Procure to Pay**

<u>Accounts payable process:</u> <ul style="list-style-type: none"> <li>• Purchase Request</li> <li>• Purchase order</li> <li>• Receive goods</li> <li>• Receive invoice</li> <li>• Match invoice against received goods</li> <li>• Match invoice against PO</li> <li>• Generate payment</li> </ul>	<u>Where does data come from?</u> <ul style="list-style-type: none"> <li>• ERP (SAP, Oracle)</li> <li>• AP System</li> <li>• Desktop (invoice matching)</li> <li>• Ad hoc systems</li> </ul>	<u>What improvements?</u> <ul style="list-style-type: none"> <li>• Seasonal issues – staffing</li> <li>• Problem suppliers</li> <li>• Better controls to reduce non-compliance</li> <li>• Automated steps that make a difference (invoice processing)</li> </ul>
	<u>What are we looking for? What KPIs?</u> <ul style="list-style-type: none"> <li>• Time to process</li> <li>• Non-compliance – overspend, unapproved orders, unauthorized suppliers</li> <li>• Errors – Incorrect PO &amp; invoice amounts</li> <li>• Bottlenecks – manual invoice matching</li> </ul>	

**Example Use Cases (Deployed Automations):**

<u>Typical IT Example: Incident Resolution</u> <ol style="list-style-type: none"> <li>1. Incident report</li> <li>2. Trouble ticket opened</li> <li>3. Investigation started</li> <li>4. Skills identified to resolve</li> <li>5. Interactions with impacted systems</li> <li>6. Interactions with ticket opener</li> <li>7. Resolution identified, executed</li> <li>8. Ticket closed</li> </ol>	<u>Where does data come from?</u> <ul style="list-style-type: none"> <li>• Ticketing systems</li> <li>• Impacted IT systems</li> <li>• Desktops</li> <li>• Ad hoc systems</li> </ul>	<u>What improvements?</u> <ul style="list-style-type: none"> <li>• Specific systems / applications to update</li> <li>• Automated ticket classification</li> <li>• Automated skill identification</li> <li>• Automated steps that make a difference</li> </ul>
	<u>What are we looking for? What KPIs?</u> <ul style="list-style-type: none"> <li>• Time to resolution</li> <li>• Non-compliance – novel tickets/causes, tickets reopened</li> <li>• Error rates – Incorrect transcription of data from tickets, incorrect system configurations, invalid tickets</li> <li>• Bottlenecks – manual system updates, escalations</li> </ul>	

**Major Federal Government and Commercial Customers:** Available on request.

**Integration Service Partners for Federal Government:** Broad partner ecosystem.

**IT Platform Requirements (on premise and cloud):** Can run on premise, on private cloud, or on public cloud (AWS, IBM Cloud, Azure, Google Cloud) via containerization.

**Licensing Structure:** Licenses by virtual processor core (VPC).

**Federal Agency Purchasing Vehicle(s):** Broad partner ecosystem.

Date:	03/04/2021
Company Name:	IBM
Product Name:	IBM Robotic Process Automation (RPA)
<p><b>Product Features, including Security:</b> IBM Robotic Process Automation enables you to automate routine tasks like data entry, data transfer, and data collection quickly and cost effectively.</p> <ul style="list-style-type: none"> <li>• Accelerate time to value by creating, testing, and deploying new automation schemes in hours, instead of days or months.</li> <li>• Reduce human error by virtually eliminating all copy-and-paste mistakes that result from entering the same data into multiple systems.</li> <li>• Increase throughput by completing automation tasks in seconds or minutes, around the clock, to deliver higher value for your customers.</li> <li>• Bots managed from secure central repository and credentials for unattended bots are stored in an encrypted repository.</li> </ul> <p><b>Key Capabilities</b></p> <p><b>Unattended bots:</b> Use an RPA digital workforce to automate repetitive tasks without human intervention.</p> <p><b>Attended bots:</b> Remote Desktop Automation (RDA) enables human workforce to augment work using bots to perform repetitive tasks on demand.</p> <p><b>Intelligent virtual agent (IVAs) chatbots:</b> Combine chat and RPA commands to create chatbots through multiple channels that can provide engaging client interactions.</p> <p><b>Optical character recognition (OCR):</b> Process documents by extracting structured data from unstructured content.</p> <p><b>Dashboards:</b> Gain business insights into business operations.</p> <p><b>Cloud native software as a service:</b> A full-featured cloud-based RPA software as a service solution enables organizations to build attended and unattended software bots and accelerate time to value.</p> <p><b>Concurrent execution with WLM:</b> Intelligently distribute work across multiple bots to optimize throughput. Reduce cost of ownership by running multiple bots on the same virtual host.</p> <p><b>Example Use Cases (Deployed Automations):</b></p> <p><b>Finance &amp; Accounting:</b> Quote-to-Cash, Procure-to-Pay, Value Acceleration (DSO &amp; Audit), Insurance Claims, and Analytics and Intelligence.</p> <p><b>Healthcare:</b> Claims Processing, Biostatistician Analytics, Patient Billing, Eligibility Verification, Mass Data Management.</p> <p><b>Human Resources:</b> PeopleSoft HRMS process automation, Print Management, Employee Onboarding.</p> <p><b>Network and IT:</b> User and Group Management, File and Folder Management, Backup and Restoration, Event Log Monitoring and Automated Problem Resolution.</p> <p><b>Integration Service Partners for Federal Government:</b> Broad partner ecosystem and IBM Integration Services with GBS.</p>	



**IT Platform Requirements (on premise and cloud):** Can run on premise, on private cloud, or on public cloud (AWS, IBM Cloud, Azure, Google Cloud).

**Is the product FedRAMP certified?** In progress.

**Licensing Structure:** We have many options and can work with clients to match their licensing needs.

**Federal Agency Purchasing Vehicle(s):** Broad partner ecosystem and a number of contract vehicles across the federal government.

Date:	09/28/2020
Company Name:	Infrd, Inc.
Contact Name, Email, Phone No.	Nik Sanghvi, <a href="mailto:nikunj@infrd.ai">nikunj@infrd.ai</a> , 408-460-1555
Product Name:	Infrd Intelligent Document Processing Platform
<p><b>Company Overview:</b> At Infrd, we help clients extract the critical insights locked within their Unstructured, Semi-Structured and Structured Data and Documents using AI / ML, NLP, Computer Vision and Predictive Modeling.</p> <p><b>Infrd is:</b></p> <ul style="list-style-type: none"> <li>• Ranked among the top IDP (Intelligent Data Processing) platforms by multiple analyst firms.</li> <li>• Winner of the 2019 AI Breakthrough Award for OCR.</li> <li>• Among the top 5 startups out of 670 worldwide to be selected in Plug and Play's current Supply Chain batch.</li> </ul> <p>You can learn more about us at <a href="http://www.infrd.ai">www.infrd.ai</a></p>	
<p><b>Product Features, including Security:</b></p> <p><b>Infrd IDP Platform:</b> Infrd's IDP Platform is the core of our Platform offering, providing the tools and interface to create, train, deploy, and manage your own Machine-Learning (ML) based models. Alternatively, you can take advantage of Infrd's growing library of pre-trained models. The Infrd IDP Platform comes bundled with 24x7x365 Support, a 99.7% uptime SLA and our ISO27001 compliant model (SOC 2 Security Certification in progress).</p> <p><b>Infrd IDP Platform Features:</b></p> <ul style="list-style-type: none"> <li>• Includes one (1) IDP Model (User-Defined or Pre-Trained).</li> <li>• Document Classification.</li> <li>• Corrections and Annotation UI.</li> <li>• Extraction of up to 20 Fields per Model.</li> <li>• Support 24x7x365 via Email, Web and Instant Messaging.</li> <li>• Cloud Deployment via Infrd's ISO27001 Certified Cloud Services.</li> <li>• SLA: 99.7% Uptime Guarantee.</li> </ul>	
<p><b>Example Use Cases (Deployed Automations):</b></p> <p>Please see the accompanying slide deck for most of our major use cases:  <a href="https://app.box.com/s/49tbensqtomoyk5zryhpw8ta9th3cbcy">https://app.box.com/s/49tbensqtomoyk5zryhpw8ta9th3cbcy</a>          You can access the detailed use cases here: <a href="https://www.infrd.ai/use-cases">https://www.infrd.ai/use-cases</a></p>	
<p><b>Integration Service Partners for Federal Government:</b> EY   Accenture</p>	
<p><b>IT Platform Requirements (on premise and cloud):</b></p> <p>Each on-premise implementation is different, based on the complexity and volume of the requirements. We can deploy either directly on data centers or virtual private clouds (AWS or Azure), or on our own multi-tenant SAAS cloud.</p>	

**Licensing Structure:**

One-time setup fee

Ongoing cloud platform fee based on number of ML (machine learning) models.

Usage fee based on number of pages processed.

Date:	06/02/2020
Company Name:	Kofax
Contact Name, Email, Phone No.	Jeremy Hogg, Jeremy.hogg@kofax.com, 571-317-9874
Product Name:	Kofax Intelligent Automation
<p><b>Company Overview:</b> Kofax software enables organizations to Work Like Tomorrow - today! Our Intelligent Automation software platform helps organizations transform information-intensive business processes, reduce manual work and errors, minimize costs, and improve customer engagement. We combine RPA, cognitive capture, process orchestration, mobility and engagement, and analytics to ease implementations and deliver dramatic results that mitigate compliance risk and increase competitiveness, growth and profitability.</p> <p>For over 25 years, Kofax has been recognized as the world leader in intelligent automation, with more than 25,000 customers globally. 86 of the top global 100 companies use Kofax in industries such as banking, insurance, healthcare, supply chain, higher education, transportation and business process outsourcing, as well as in top agencies in government. As a global company with over 2,400 employees and 850 partners worldwide, Kofax supports some of the largest institutions in the world. We are highly profitable and privately held (not venture capital-backed) allowing for continual innovation and improvement of our platform. Our commitment to continual improvement of our automation platform means more than 550 staff (more than 25 percent of our total headcount) focus on R&amp;D, ensuring we continually enhance our products and maintain our leadership position in intelligent automation. Kofax is globally headquartered in Irvine, CA. USA</p>	
<p><b>Product Features, including Security:</b> We offer an integrated Intelligent Automation platform that combines RPA, cognitive capture, process orchestration, advanced analytics, and mobility and engagement capabilities.</p> <p><b>AI-Powered Intelligent Automation:</b> Deploy a native mix of interoperable automation technologies and artificial intelligence to transform information-intensive business processes to be more efficient, faster and precise.</p> <p><b>AI-Driven Cognitive Capture:</b> Go beyond basic OCR with embedded AI to automate more unstructured content from more types of content and more channels than any other capture solution on the market.</p> <p><b>Process Orchestration:</b> Automate routine workflows and streamline case management processes for better compliance, decision-making, ad-hoc activity and process visibility.</p> <p><b>Robotic Process Automation:</b> Build a digital workforce that assists or offloads repetitive and data-intensive tasks from knowledge workers, freeing them to focus on more productive and value-added tasks.</p> <p><b>Advanced Analytics:</b> Gain insight into automation KPIs with ready-to-go capture and process dashboards and customizable dashboards.</p> <p><b>E-Signature:</b> Execute crucial agreements faster and allow customers to use any signature format they wish.</p> <p><b>Customer Communications:</b> Accelerate engagement by delivering low-latency, two-way, omnichannel customer communication that is faster, more targeted and less expensive.</p>	

**Off-The-Shelf Flexible Integration:** Accelerate implementation of your solution and leverage and extend your existing software assets with pre-built connectors, web services and synthetic API methods.

Cognitive Capture Datasheet: [https://www.kofax.com/-/media/Files/White-Papers/EN/wp\\_cognitive-document-automation-its-not-just-about-ocr\\_en.pdf](https://www.kofax.com/-/media/Files/White-Papers/EN/wp_cognitive-document-automation-its-not-just-about-ocr_en.pdf)

Robotics Process Automation (RPA) Datasheet: [https://www.kofax.com/-/media/Files/Datasheets/EN/ps\\_kofax-rpa\\_en.pdf](https://www.kofax.com/-/media/Files/Datasheets/EN/ps_kofax-rpa_en.pdf)

Kofax Robotic Process Automation (RPA) provides an integrated platform that is highly scalable and flexible. Also, as one of the top three leaders in the RPA space within federal market, our RPA provides the most advanced AI/OCR/ML/NLP capabilities in the market.

### **Mobile, Web Forms, & E-Signature**

Mobile Image Capture <https://www.kofax.com/Products/Mobile-Capture>

Sign Doc (e-signing) [https://www.kofax.com/-/media/Files/Datasheets/EN/ps\\_kofax-signdoc\\_en.pdf](https://www.kofax.com/-/media/Files/Datasheets/EN/ps_kofax-signdoc_en.pdf)

(Video 3 min) <https://www.kofax.com/Learn/Videos/Kofax-Mobile-ID-From-Start-to-Sign-in-60-Seconds>

**Security:** Kofax software relies on the following industry-standard technologies to provide much of the security within each application: Active Directory or LDAP services for authentication and authorization privileges, secure data transmissions using SSL/TLS and encryption algorithms provided by the Relational Database Management System (RDBMS) or File Systems using whole-drive encryption technologies such as EFS (Encrypted File System) or BitLocker.

### **Example Use Cases (Deployed Automations):**

**Bureau of the Fiscal Service:** Budgetary constraints mean that it has never been more important for U.S. federal agencies to do more with less. The Bureau of the Fiscal Service's Administrative Resource Center (ARC), the shared services provider for 82 Federal Agencies — aimed to solve the challenge by eliminating the need for repetitive, manual tasks.

Working with Kofax, the Bureau of the Fiscal Service deployed Kofax RPA, enabling it to create smart software robots to automate rules-driven processes. After a successful pilot program, the Bureau has implemented over 60 robots into production, automating key tasks from end to end.

The Bureau of the Fiscal Service now harnesses Kofax RPA to support processes in every area of the ARC, including HR, travel, and accounting. Based on the efficiency improvements achieved since it deployed the solution, the organization is planning to extend Kofax RPA across all parts of the bureau.

The Bureau has accelerated some business activities by up to 99 percent, liberating employees to focus on value-added work. The Bureau has identified around \$7 million in labor reallocation opportunities in a five-year period, helping other federal agencies to deliver outstanding services for less.

**CMS Health Care Exchange:** The Centers for Medicare and Medicaid (CMS) utilizes Kofax to provide an application processing platform for the Affordable Care Act, Health Care Exchange. When the Exchange websites were overwhelmed with visitor traffic in 2010, a Kofax enabled platform was deployed to process paper applications that could not be done online.

Approximately 4,000 individuals across four processing centers manage mailed correspondence, which represents over 45 million pages and 5 million cases each year. One of the first goals for

process automation was case management to intelligently capture data from forms and speed up the ingestion part of the process.

In the past, employees manually reviewed and transcribed information from customers' documents, before collating and matching it with data from external systems to determine their eligibility. To streamline the process, CMS deployed Kofax to extract data from paper forms, clean up poor-quality images, and automatically classify each document using artificial intelligence (AI) and machine learning (ML) technology. By automating what would otherwise be manual and time-consuming data entry, the Kofax solution reduces labor costs, minimizes the risk of errors and drives operational efficiency.

Based on the success of its initial work with Kofax, CMS introduced Kofax robotic process automation. Employees were still spending significant time searching for and manually retrieving documents during the case management process. Today, a Kofax automated decision-making service determines whether a task is suitable for a software robot, and then assigns it to Kofax RPA. Next, the Kofax software robot logs into the case management system as if it were a human user, and completes the task based on the same rules and governance frameworks that apply to employees.

Kofax RPA now completes 300,000+ processes per month, saving an estimated 100 full-time employees during peak work periods. As a result, CMS can accommodate regular spikes in processing requirements without hiring additional workers that would otherwise be required. At an average processing speed of four minutes per task, the Kofax solution is up to four-times faster than a typical human employee. This has allowed CMS to drive far greater efficiencies without compromising quality or accuracy.

**Major Federal Government and Commercial Customers:** Our focus serving government agencies is well-established. Kofax has been providing solutions to the government market since 1997, and we have a broad installation base in the federal marketplace including more than 350 unique sites across civilian, defense and intelligence community agencies. Key US Federal government customers include Department of Treasury - Bureau of Fiscal Service (BFS), Census Bureau, Office of the Director of National Intelligence (ODNI), Defense Intelligence Agency, Department of Veterans Affairs, Transportation Security Administration, Department of Homeland Security Headquarters, US Air Force, US Army, US Navy, US Coast Guard, and the Centers for Medicare & Medicaid Services (and many more). Kofax is in all 16 departments of the US Federal government. Collectively, Kofax is trusted by more than 25,000 customers globally, including the largest and most respected companies in the world. With thousands of customers across multiple industries, from finance, healthcare and government, to transportation, logistics and manufacturing. Key commercial customers include Humana, Allianz, Cigna, Johnson Controls, TD Bank, Wells Fargo, Bank of America, JP Morgan Chase, State Employees Credit Union (SECU), ConAgra Foods, Domino's Pizza, Chevron, BP, University Hospitals, Spectrum Health, GE, Swiss Post.

**Integration Service Partners for Federal Government:** Kofax is committed to working with many types of firms and supporting the small, disadvantage business community. Formal partnerships with Kofax include the following: Brilliant Corp (SB), Modus Operandi (SB), Infocap Networks (SB), Premier Solutions (SB), Excelicon (SBA 8a), Aitheras (SB), Steel Point Solutions (SBA 8A, Hubzone, WOSB), Ricoh, Konica Minolta, Xerox, Lexmark, Deloitte. Other partners that Kofax work with us on



major programs include Booz Allen Hamilton, Leidos, CACI, SAIC, IBM, Serco, CGI Federal and many others.

Note: SB – denotes small business, SBA 8A – certified 8A, HubZone – HubZone certified, WOSB – Certified Woman Owned Small Business.

**IT Platform Requirements (on premise and cloud):** An on premise or cloud instance does not change the core platform requirements as noted below.

- Server Operating Systems: Windows Server 2008 R2 (64-bit), Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019.
- 3rd Party Requirements: Microsoft .NET Framework 4.7, ASP.NET, IIS.
- Operating Systems: Windows 10, Windows 8.1 (Desktop Mode Only), Windows 7 with SP1 (32-bit/64-bit).
- Supported Browser: IE 11 Note: IE 11 Enterprise Mode Not supported Chrome (Version 76 and above) Firefox (Version 68 and above) Safari Edge.
- DBMS: SQL Server 2012, SQL Server 2014, SQL Server 2016, SQL Server 2017.
- Security: SSL.

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** This is list exhaustive because our software is widely deployed, but to name a few: Treasury/BFS, Internal Revenue Service (IRS), Transportation Security Administration (TSA), Census Bureau, Department of Homeland Security HQ, Coast Guard, Navy, Army, Air Force, Defense Logistics Agency, Small Business Administration (SBA), Drug Enforcement Agency (DEA), Department of Justice, Federal Bureau of Investigations (FBI), etc. We have presence in 16 out of 16 departments and hundreds of deployments in production with ATO.

**Is the product FedRAMP certified?** No, but we have been deployed in cloud environments commercially and within Federal and do offer several products as SaaS. We are exploring FedRAMP as part of our roadmap for 2021.

**Licensing Structure:** The Kofax platform licensing is highly scalable and aligned to the value we deliver to our customers. The licensing structure varies based upon which automation module is deployed but is largely based on usage metrics and users. This includes concurrent users on the platform, page volume ingest for data capture, number of concurrent production bots for our RPA module, or signing events for our e-signature. Our RPA offers unlimited development bots and our process orchestration engine has no limit on the complexity of processes. Licensing can be offered on either an annual term (up to 3 years) or on a perpetual basis. Kofax solutions may be deployed as on-premise, hosted, cloud, or SaaS depending on the product. Customers may choose to use a Kofax solution with their own personnel or leverage one of our many certified resellers to operate their solution.

**Federal Agency Purchasing Vehicle(s):** To ensure our products can be easily purchased by federal customers, Kofax partners with Carahsoft. As the sole Kofax distributor in the federal marketplace, Carahsoft enables federal customers to purchase Kofax products from the GSA IT-70 schedule, NASA SEWP, and by August 2020 GSA IT-99.

Date:	02/01/2021
Company Name:	<b>Live Objects</b>
Contact Name, Email, Phone No.	Vinod Nair, <a href="mailto:vinodnair@liveobjects.ai">vinodnair@liveobjects.ai</a> , 408-332-6527
Product Name:	Live Objects

**Company Overview:** Live Objects is the world's first closed-loop self-optimizing business process transformation platform. The product actively generates and manages AI-driven business process customizations that meet changing performance, customer experience and risk need from business operations. It infers gaps in business processes across business applications in SAP, Salesforce, Oracle, Workday, etc. by mining patterns in KPIs hidden across structured sources of data like systems of record, rules, business objects and process logs, and unstructured sources like emails, contracts, chat logs and call records. The process customizations are generated by harnessing in-built domain awareness about specific process areas to continuously optimize data-driven intelligence, rules and process workflows.

**Live Objects AI Platform delivers business process optimization by:**

- Discovering business process entities from heterogenous transactional systems and business entities extracted from ad-hoc manual activities.
- Enriching extracted business entities with business knowledge using ontology and semantic business relationships.
- Recommend changes in business processes and optimize them for key process Indicators such as cost, customer satisfaction, revenue leakage, time.

**Product Features, including Security:**

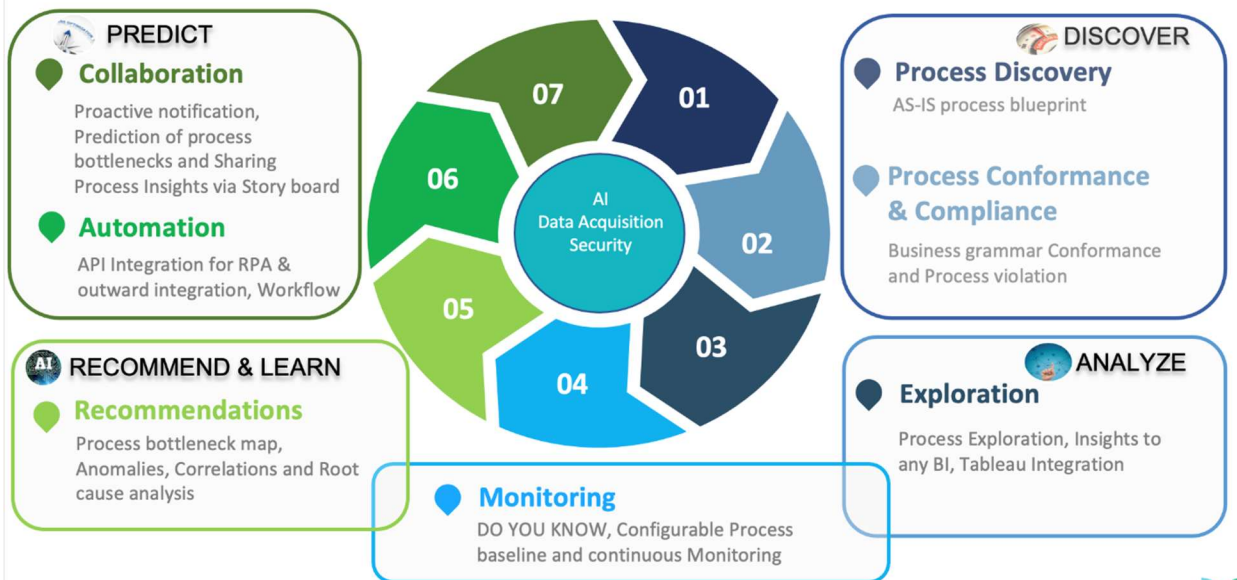


**How it works:**

- **Discover** - automatically discovers processes and builds a visual map that includes business labels and interdependencies.
- **Analyze** - algorithms convert data into directed graphs highlighting each node with aberrations/bottlenecks identified.
- **Recommend and Learn** - overlays machine learning; augmenting neural network output with human-defined filters.

- **Predict** - uses deep learning (CNN) to predict anomalies on transactions based on historical process maps.

### PROCESS INTELLIGENCE PLATFORM - THE CLOSED LOOP



**Example Use Cases (Deployed Automations):** Bringing 'Art of the possible' to process optimization.

#### Finance, Risk & Controls

Optimizing Finance processes across revenue management, accounts receivable, accounts payable, reconciliations and risk and controls.

#### Procure to Pay

Continuously optimize procurement experience, PO processing and payment discounting.

#### Quote to Cash

Continuously optimize customer experience, quote-level pricing intelligence and renewals.

#### Automation

Zero-touch optimization of automation bots deployed across multiple processes and RPA platforms.

#### Migration

Migration to new cloud applications from legacy (e.g. to S4 HANA, Salesforce)

**Major Federal Government and Commercial Customers:** Housing & Urban Development

**Integration Service Partners for Federal Government:** GDIT

**IT Platform Requirements (on premise and cloud):** On-premise and Cloud – Containerized deployment – Azure, Google Cloud, Amazon Web Services

**Licensing Structure:** Usage Based –

- Explore – Starter package for process explorations.
- Optimize - bundled with API connectors & AI driven business grammar, ontology mapping and auto join for easy data wrangling.
- ELA – Enterprise License with business optimization hours support.

Date:	06/15/2020
Company Name:	<b>Micro Focus Government Solutions</b>
Contact Name, Email, Phone No.	MFGS Sales, <a href="mailto:sales@microfocusgov.com">sales@microfocusgov.com</a> , 703-663-5500
Product Name:	Micro Focus Robotic Process Automation
<p><b>Company Overview:</b> Micro Focus Government Solutions (MFGS) is a government-focused entity of Micro Focus, created through the 2017 merger of Micro Focus and the enterprise software business of Hewlett Packard Enterprise (HPE). MFGS is an OEM of agile and modern software solutions, a top ten largest pure-play enterprise software company, with 300+ business-critical software products. MFGS helps organizations run and transform their business. Driven by customer-centric innovation, our software provides the critical tools they need to build, operate, secure, and analyze the enterprise. By design, these tools bridge the gap between existing and emerging technologies— enabling faster innovation, with less risk, in the race to digital transformation (Enterprise DevSecOps, Hybrid IT Management, Security, Risk &amp; Governance, Predictive Analytics). Offering best of breed software across solution verticals including IT Operations, IT Security, Information Governance, Cybersecurity, Cybersecurity Operations, DevSecOps, AI, and Cloud Management.</p>	
<p><b>Product Features, including Security:</b> The Micro Focus RPA solution is the convergence of two proven technologies, Micro Focus Operations Orchestration and Micro Focus Unified Functional Test with over four thousand combined enterprise customer implementations. Those technologies combined with the world class Micro Focus Security portfolio positions Micro Focus RPA as a complete, secure, enterprise RPA solution. Micro Focus RPA provides a practical, non-invasive way to build, scale, and secure automated business processes across the enterprise. Using software robots, which mimic UI-based human actions to perform everyday tasks, you can keep your underlying IT infrastructure in- tact. Your robots interact with apps and systems just like people do. But—they are faster, more accurate, highly secure, and never sleep. They save time. They cut costs. And they free human employees to focus on more important things.</p>	
<p><b>Micro Focus RPA Highlights</b></p> <p><b>Easy-to-Use Design Studio:</b> Design and edit automations with ease. The intuitive visual low-code/no-code web interface makes it possible for you to do all your work in one screen. Record and edit UI actions. Parametrize inputs. Drag and drop, then wire- and-click UI and API automation steps. You can build sophisticated end-to-end workflows for any use case—whether simple or complex.</p> <p><b>Resilient Robots:</b> Keep processes flowing when change happens. Technology-rich RPA gives your robots the power to identify more than 600 UI objects across hundreds of applications—from SAP to terminal emulation, web, and Windows. Using advanced object recognition, they record objects by their properties and can automatically adapt to changes in size, color, or position. Minor application changes will not break existing RPA workflows. You will spend less time on maintenance as a result.</p>	

**Centralized Robot Orchestration:** Orchestrate the automation your enterprise needs. Connect entire business processes by combining UI and API automation steps. Access rich out-of-the-box API content. Centrally coordinate the work of multiple robots. Apply advanced workflow logic for decision-making, parallel-processing, and error-handling. Now run, schedule, and monitor your robots from a central dashboard. Your highly capable robots are primed for enterprise action.

**Self-Service Portal:** Make it easy for business users to run RPA processes. Empower them with a user-friendly interface, a searchable catalog of automation scenarios, and notifications for triggered activities. The portal is customizable—for example, you can organize processes by business function.

**Scalable Robots:** Scale your robots up or down as workloads change. A worker-queue-based architecture makes it possible to achieve load balancing and high availability. The queue manages a pool of resources and assigns robotic requests to robots. Working 24x7, at 100 percent capacity, robots can perform massive numbers of tasks with lightning speed. Which means you can respond to demand peaks and valleys with agility.

## Security

**Enterprise-Level Security:** Run your business processes with secure robots. Your robots have unique IDs and role-based credentials. They can run on locked screens, use encrypted passwords, and automate processes without exposing sensitive data. Track all their actions in detailed logs, in real time. Thanks to robust error-handling capabilities, you have the flexibility to decide how to handle errors and determine robot actions. Micro Focus is uniquely positioned, due to our broad portfolio of products, as the only vendor capable of offering a complete secure enterprise solution made up of both Robotic Process Automation and Privilege Access Management technologies.

**Enterprise-Level Security - Privilege Access Management:** Micro Focus Privileged Account Manager (PAM) eliminates the need to distribute privilege-account credentials to your robots. It delegates access using centralized policies. You configure these policies to allow or deny robot activity based on a comprehensive “who, what, where, when” model that examines the robot’s name, typed command, host name and time. By managing privileges this way, you can control what commands robots are authorized to run, at what time and from what location. Privileged Account Manager features an Enterprise Credential Vault, or an encrypted password “vault,” that provides secure storage of your system, application, and database passwords. The Enterprise Credential Vault helps you to centrally manage your organization’s privileged accounts and provides an intuitive interface for privileged robots to check-out and return passwords. It also enables broader privilege account support for applications (such as SAP System), databases (such as Oracle DBMS), and cloud services (such as Salesforce.com.)

## Key Features

- Enterprise Credential Vault for secured password vaulting.
- Risk-based session control to enable automatic session termination or access revocation.
- Remote session establishment and control for operating systems.
- Risk profiling that quickly identifies high-risk robots.
- Smart risk ratings built on potential threat analysis.



**Key Differentiators:** Build the most comprehensive audit trail available. With Privileged Account Manager, you can audit all robot activity with 100-percent keystroke logging and video capture for all credential-based environments, including applications such as SAP System, databases such as Oracle DBMS, and cloud services such as Salesforce.com. For specific access events, auditors may play back the entire event at a keystroke level— with color-coded, line-by-line detail—and apply a status of “authorized” or “unauthorized” to each event.

**Example Use Cases (Deployed Automations):**

**Finance** fast-tracks central bank rate updates by 85%, instills confidence in the audit process.

**Challenge:**

- Updating central bank rates is a tedious, manual process. Twenty minutes every day, the financial analyst spends time downloading, formatting, uploading, and validating data.
- Required corrections are carefully documented. During audit time, up to seven hours are spent answering questions.

**Benefits:**

- Fast-track exchange rate updates and validation by 85% - From 20 minutes of manual work every day to 3 minutes automatically with RPA
- Streamline annual audit process – Highly accurate robots. Detailed activity log (audit trail). Increased auditor confidence.

Watch an on-demand presentation for the use case here: [https://content.microfocus.com/vuna-itom-dca-hcm-oo-rpa/orchestration-best-practices-na?utm\\_campaign=vuna](https://content.microfocus.com/vuna-itom-dca-hcm-oo-rpa/orchestration-best-practices-na?utm_campaign=vuna)

**Bank** automates credit dispute reporting and prioritization on age-old legacy app, meets regulatory requirements.

**Challenge:**

- Web-based legacy app, paginated across many screens, offers no filtering or exporting
- Managers scroll through the data, print screens, and manually assign disputed cases
- Printouts expose sensitive data

**Benefits:**

- Save 2 Manager hours per day. Generate to-do report; cases prioritized and assigned automatically
- Increased security with encryption, eliminate printouts
- Meet regulatory requirement for time-to-resolution
- Establish foundation for automatic dispute resolution (no human intervention)

**Fashion** company gets timely business reports, automates transfer of remote cash desk data from stores worldwide.

**Challenge:**

- GU-I-based legacy app fails to transmit POS data overnight from stores around the world

**Benefits:**

- Save 3 human hours everyday
- Generate business reports on time
- Entirely orchestrated process reduce employee effort by 100%



- IT identifies and manually connects to stores with transmission errors and triggers another data send (via remote desktop protocol)
- Business must wait until noon for data analysis

- Increase quality of business data.

Telco eliminates cost wastage, slashes time to process service requests from enterprise customers.

**Challenge:**

- Bloated with manual administrative processes, decommissioning a service for enterprise multinational customers takes several weeks across multiple apps and notification systems
- Telco incurs unnecessary costs, as it continues to pay 3rd party providers until the decommission is fully processed.

**Benefits:**

- Reduce processing time from several weeks to few days
- Reduce costs due to elimination of unnecessary payouts to 3rd party providers
- Achieve 2X increase in efficiency
- Reduce employee effort by 99%
- Process 250 decommissions per month versus never more than 108 previously
- Ability to run parallel executions

**Major Federal Government and Commercial Customers:** Micro Focus Government Solutions and Micro Focus have a broad customer base which includes all Cabinet agencies, all Intel agencies, all Department of Defense agencies, all fifty states, and 98 of the Fortune 100 companies. Over four thousand customers across the aforementioned areas have successfully leveraged Micro Focus Robotic Process Automation or one of the two technologies, Micro Focus Operations Orchestration or Micro Focus Unified Functional Test, that are leveraged within the Micro Focus RPA solution. Due to company policy we are unable to disclose names in this type of forum.

**Integration Service Partners for Federal Government:** The Professional Services organization at Micro Focus Government Solutions is part of a global enterprise services group that helps Commercial, Federal, State, Local, and Education customers run and transform their businesses. Driven by customer-centric innovation, our software and service knowledge provide the support that customers can rely on to build, operate, secure, and analyze their enterprise and enterprise solutions. Our services help customers bridge the gap between existing and emerging technologies—which means customers can innovate faster, and with less risk, in the race to digital transformation. This applies to all customers of the broader Micro Focus company.

Specific to our Federal and public agencies as well as higher education institutions, Micro Focus Government Solutions provides a fully mitigated, US based, software company with the experience and skillset necessary to handle the unique nature of those customers.

The MFGS Professional Services organization has been delivering the technologies of the Micro Focus RPA solutions for more than 20 years, well before “Robotic Process Automation” was an industry catch phrase. And now that these two products converged with Micro Focus RPA, our professional services team is positioned with the deepest knowledge and ability to deliver, both independently and with a partner.

In addition to offering Professional Services to customers in and of itself, it is notable that the company that develops the software is also the company that provides the services. This is a differentiator in the marketplace. Not only are our service professionals knowledgeable on our software, but they are also up to date on a rapidly evolving 3 month update cycle for our products, as well as able to act as a single point of entry should a customer’s needs require reach-back to: Customer Success and Advocacy Teams, Product Management, R&D, as well as support. This is part of our heritage “One Face to the Customer” approach. We love our partners, but this is additional value we bring to our customers.

In addition to our Professional Services organization, Micro Focus Government Solutions has a broad integration service partner ecosystem of over 400 partners. The partners who specialize in Micro Focus RPA solution or the underlying technologies include: Nolij Consulting, Pillar Global Solutions, GreenLight Group, Vision Integration Professionals (VIP), Melillo Consulting, Mobius Partners, International Integrated Services (IIS), Intact Technologies, Foulk Consulting, Checkpoint Technologies.

In addition to these integration service partners, we have partnerships with many of the management consultant and advisory firms that focus on business process engineering. We are open to new partnerships and can most likely establish a relationship with a specific provider recommended.

**IT Platform Requirements (on premise and cloud):** Micro Focus Robotic Process Automation supports both on-premise and cloud-based deployments. The following outlines the major components and their recommended requirements. The latest system requirements can always be found within the Installation > Plan > System requirements section of our public documentation: <https://docs.microfocus.com/RPA>

**Workflow Designer:** RPA Workflow Designer is a web-based environment for authoring flows, which is available as a standalone product that can be deployed either on a Windows or Linux server.

**Central:** RPA Central is the run time environment of RPA. It is used for running flows, monitoring the various runs, and generating reports. It has a web-based UI and a set of Application Programming Interfaces (API), which are accessed by the administrators, end users, and integrators.

**Robot:** RPA Robot is the execution engine that processes the recorded activities systematically. This RPA steps are pushed by Central to the queue and are retrieved by the RPA Robot.

**Recorder:** RPA Recorder can be triggered from the Workflow Designer to record screen events in real-time, in order to automate mundane business processes. The Activity Recorder controller bar

is a free-flowing visual component that can be moved across the current screen. After the recording session is over, the resulting RPA Activity can be managed in RPA Workflow Designer.

**Self-Service Portal:** The RPA Self-Service Portal is a web-based portal that has a catalog of RPA flows for reuse. It lets the users search for process scenarios that have been published by authors for production use and execute them with just a few clicks and inputs.

Micro Focus RPA offers horizontal scaling of both Central and Robot components to meet demand for increased execution throughput.

**RPA Recorder:** A recorder is installed on each client machine used by an automation author.

Windows Server 2012, 2012 R2, 2016

- Dual-core CPUs or better
- 4GB Memory
- 2GB Disk

Windows 7 SP1, 8.1, 10

- Dual-core CPUs or better
- 4GB Memory
- 2GB Disk

#### **RPA Robot**

Windows Server 2012, 2012 R2, 2016

- Dual-core CPUs or better
- 4GB Memory
- 2GB Disk

Windows 7 SP1, 8.1, 10

- Dual-core CPUs or better
- 4GB Memory
- 2GB Disk

#### **RPA Central**

Windows Server 2012, 2012 R2, 2016

- 4 cores
- 4GB Memory
- 4GB Disk

Oracle Linux 6.6

- 4 cores
- 4GB Memory
- 4GB Disk

SUSE Enterprise Linux 12.x

- 4 cores
- 4GB Memory
- 4GB Disk

Red Hat Linux Enterprise 6.x, 7.x

- 4 cores
- 4GB Memory
- 4GB Disk

#### **RPA Self-Service Portal**

#### **RPA Workflow Designer**

Windows Server 2012, 2012 R2, 2016

- 4 cores
- 4GB Memory
- 2GB Disk

Oracle Linux 6.6

- 4 cores
- 4GB Memory
- 2GB Disk

SUSE Enterprise Linux 12.x

- 4 cores
- 4GB Memory
- 2GB Disk

Red Hat Enterprise Linux 6.x, 7.x

- 4 cores
- 4GB Memory
- 2GB Disk

#### **Database**

Oracle 12c R1 RAC, 12c R1\*, 12c R2\*\*, 18c

- 2 cores\*\*\*\*
- 4GB Memory \*\*\*\*
- 300GB Disk

PostgreSQL 9.4x, 9.5x, 9.6, 10

- 2 cores\*\*\*\*
- 4GB Memory \*\*\*\*
- 300GB Disk

SQL Server 2012\*\*\*, 2014, 2016, 2017

- 2 cores\*\*\*\*
- 4GB Memory \*\*\*\*
- 300GB Disk

*Note: \*Regular, non-CDB | \*\*Regular and CDB | \*\*\*All service packs are supported | \*\*\*\*According to database vendor's recommendations and requirements, but no less than listed.*

Windows Server 2012, 2012 R2, 2016

- 4 cores
- 4GB Memory
- 2GB Disk

Oracle Linux 6.6

- 4 cores
- 4GB Memory
- 2GB Disk

SUSE Enterprise Linux 12.x

- 4 cores
- 4GB Memory
- 2GB Disk

Red Hat Enterprise Linux 6.x, 7.x

- 4 cores
- 4GB Memory
- 2GB Disk

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** Federal agencies have successfully obtained ATO/ATP for Micro Focus Robotic Process Automation or one of the two technologies, Micro Focus Operations Orchestration and Micro Focus Unified Functional Test, that converged to make the Micro Focus RPA solution. Due to company policy we are unable to disclose agency names in this type of forum.

**Is the product FedRAMP certified?** Micro Focus RPA can be configured and hosted on FedRAMP IaaS providers. This enables government customers to provide enterprise level software services on demand while removing the complexity of managing IT. Micro Focus Government Solutions has a broad partner ecosystem with proven experience providing Micro Focus solutions in a managed service, or Platform as a Service (PaaS), capacity with Authority to Operate (ATO). The Micro Focus Robotic Process Automation solution is not offered as a vendor hosted Software as a Service (SaaS) and therefore not FedRAMP certified.

**Licensing Structure:** Micro Focus Robotic Process Automation is licensed by concurrent robot execution for 1- or 3-year terms. A Micro Focus RPA license plan counts the maximum number of robots that can execute RPA workflows simultaneously. A single concurrent robot license entitles customers to all RPA components and content, unlimited users and developers, as well as non-production environments.

**Federal Agency Purchasing Vehicle(s):** To simplify procurement, Micro Focus Government Solution has secured numerous contract vehicles, including agency specific and government wide federal, state & local contracts with our distributors (e.g. Carahsoft, immixGroup, etc.) to ensure our products and services are available to the government.

GSA Schedules, Other Federal IDIQ/GWAC, SEWP, ESI, BPA, State & Local, Education, CDM, Army CHES ITES-SW, FITARA, AWS Marketplace, NASPO, Other Transaction Authority, OMNIA Partners, Public Sector.

Date:	02/24/2021
Company Name:	<b>Pegasystems</b>
Contact Name, Email, Phone No.	David Marsh, <a href="mailto:David.marsh@pega.com">David.marsh@pega.com</a> , 703-470-1982
Product Name:	Pega Infinity & Pega Government Platform (PGP)
<p><b>Company Overview:</b> Launched in 1983 by Founder and CEO Alan Trefler. Headquarters in Cambridge, Massachusetts, USA. Regional offices across North America, Europe, Latin America, and Asia Pacific. 5,000+ employees worldwide. Multiple patents and awards for software innovation. Publicly held (NASDAQ: PEGA). Robust partner and alliance network. Our cloud software empowers the world's leading companies to maximize customer value, streamline customer service experiences, cut costs, crush complexity, and deliver real digital transformation outcomes. Pega does this with award-winning CRM, case management, intelligent automation, robotics, AI, and real-time decisioning.</p>	
<p><b>Product Features, including Security:</b> Innovative software that helps enterprises solve problems fast and transform for tomorrow. Maximizes customer lifetime value, streamlines services, and boosts efficiency. Product features:</p> <ul style="list-style-type: none"> <li>• Real-time AI-Powered Decisioning</li> <li>• Automated BPM and Case Management</li> <li>• Chatbots and Virtual Assistants</li> <li>• Cloud Services</li> <li>• DevOps and Testing</li> <li>• Low-Code App Development</li> <li>• RPA</li> <li>• Workforce Intelligence</li> <li>• Live Data</li> <li>• Scalable Architecture</li> </ul> <p>Pega Information Security, Controls, and Compliance secures our physical and information assets globally and provides a secure computing environment for our clients. Responsible for information and physical security, cyber resiliency, business continuity planning, incident response and crisis management, privacy, and compliance. Pega Infinity and the Pega Government Platform (PGP) are compliant with all relevant guiding authority to operate in the Public and Private Sectors.</p>	
<p><b>Example Use Cases (Deployed Automations):</b> US Air Force Research Laboratory, Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Federal Bureau of Investigation (FBI), Department of Agriculture, Census Bureau, Social Security Administration (SSA), Department of Treasury, Veterans Affairs, US Marine Corps.</p>	
<p><b>Major Federal Government and Commercial Customers:</b> Department of Commerce, Department of Justice (DOJ), Department of Agriculture, US Air Force (USAF), Census Bureau, Social Security Administration, American Express, HSBC, Aflac, AAA Insurance, Blue Cross/Blue Shield, United Health Group, Sprint, Cisco, Ford Automotive, ConEdison, British Gas.</p>	

<b>Integration Service Partners for Federal Government:</b> Accenture Federal Services (AFS), Booz Allen Hamilton, Ernst and Young, Amazon Web Services (AWS), Deloitte.
<b>IT Platform Requirements (on premise and cloud):</b> Pega's Cloud Choice allows flexibility for implementation on-premise or via cloud alternative of choice.
<b>Federal agencies from whom Authority to Operate (ATO) has been obtained:</b> USDA, USAF, SSA, DOJ, Veterans Affairs, Department of Education, Census Bureau, Internal Revenue Service, and ATF
<b>Is the product FedRAMP certified?</b> Yes
<b>Licensing Structure:</b> Pega uses a low code app factory to share and reuse common processes, business rules, and integrations across license types and programs, you can rapidly create and manage new license types and new innovations, like mobile and digital experiences. Pegasystems provides a Master License framework that applies to many customer installations of Pega Platform. Your system includes facilities that you can enable to monitor system usage, reported in several categories. Reports from these facilities can provide evidence that usage remains within the parameters established in your license.
<b>Federal Agency Purchasing Vehicle(s):</b> GSA Multiple Award Schedule 70 (GS-35F-0265X), ITES-SW2 (W52P1J-20-D-0057), NASA SEWP V (NNG15SC16B), OMNIA Partners (R190903)



Date:	06/03/2020
Company Name:	<b>Signavio, Inc.</b>
Contact Name, Email, Phone No.	Jean-Patrick Ascenci, <a href="mailto:jean-patrick.ascenci@signavio.com">jean-patrick.ascenci@signavio.com</a> , 514-889-8180
Product Name:	Business Transformation Suite

**Company Overview:** Signavio was born out of an obvious need for a more collaborative and accessible approach to process management. Four students at the Hasso Plattner Institute in Potsdam, Germany saw that process management was either nonexistent or completely unmanageable for many companies—there was no way to share knowledge between employees or departments. And while there might be theoretical or academic ways to study and implement process management, businesses were not benefitting from it because it did not exist in any sort of accessible platform, such as a software solution. The students wanted to address this issue and what started out as a research project to create a modeling tool with collaborative functions turned into a prototype for the Signavio software that appeared in 2006. After the tool was refined, Signavio was founded in 2009 and introduced the first completely web-based collaborative BPM software.

**Product Features, including Security:**

**Signavio Process Intelligence** helps modern businesses navigate and manage process challenges beyond the boundaries of implementation. With accelerated Live Insights, operational knowledge is available and shared effortlessly throughout the Suite. This velocity of understanding means you can extract relevant information from a homogenous data set quicker than ever, helping enterprises to connect process science (process mining) with data science (visual analytics). By turning static models into dynamic, responsive dashboards that inform, guide, and warn, you can choose new relevant thresholds and drill-down to connect models to pinpoint accurate processes.

[Signavio Process Intelligence - Let Your Data Tell a Story](#)

[Signavio Process Intelligence - Product Brochure](#)

**Signavio Collaboration Hub** is the collaborative capability to implement business transformation across the entire Suite, underpinning excellence strategies for organizations across industries and geographies. The Hub is a step-up in operational reinvention, and streamlines coordination across stakeholders during process mining, process design, and process execution. The Hub helps you transform business and workspaces. With the accelerated wisdom of the crowd, companies generate more ideas, optimize processes, and reduce resistance to digital change.

[Signavio Collaboration Hub | Signavio](#)

[Signavio Collaboration Hub Velocity Edition Brochure](#)

**Signavio Process Manager** is an intuitive BPM solution for professional process modeling. Whether you want to create current-state documentation or target concepts, Signavio Process Manager is your best choice. Thanks to innovative web technology, you can get started right away and include your colleagues in collaborative design across modeling, analyzing, optimizing, and executing processes within your organization. Put your business on the path to operational excellence with a refreshingly modern and easy-to-use interface. Use the share functionality to instantly share modeling feedback, reviews, and comments across the Suite.

[BPM Platform for Process Modeling - Signavio Process Manager](#)

[Signavio Process Manager Velocity Edition Brochure](#)

**Signavio Workflow Accelerator** turns your business process models into standardized workflows that can be rolled out across your entire organization. Go beyond task management and ticket systems to capture, connect, and communicate how work is done. Connect workflows to process mining investigations! The result is a high level of consistency and efficiency throughout your company, supported by an easy-to-use and accessible workflow engine to drive success, intelligence, business transformation, and customer understanding.

[Workflow Management for All - Signavio Workflow Accelerator](#)

[Signavio Workflow Accelerator Velocity Edition Brochure](#)

**Example Use Cases (Deployed Automations):**

**Operational Excellence** - Operational excellence can never really be ‘achieved’, because it requires constant monitoring and the re-evaluation of an enterprise’s business operations. However, ensuring your processes are streamlined is a good start, as this allows you to respond to changing market conditions with ease. Fortunately, most of the knowledge required to achieve your desired future state already exists in your organization. Accessing it is the real challenge! With the Signavio you can harness this knowledge and the expertise within your team by documenting and improving operations, collaboratively. [Operational Excellence - Increase your efficiency & effectiveness | Signavio Content Library](#)

**Mapping Your Customer Journey** - In the past, ‘customer experience’ was often the last issue companies considered, as they focused on sales and productivity. But no longer, as what was once called word-of-mouth is now fully branded user-generated content. A bad review, a shoddy product, or unfriendly service can be seen by millions, instantly. [Customer Journey Mapping | Signavio Content Library](#)

**Risk & Compliance** - The pace, complexity, and impact of change is affecting every vertical and organization, yet one thing remains constant - the need to proactively manage and mitigate risk and ensure compliance for your organization. Densely interconnected regulatory regimes coupled with more severe penalties are increasing the need to make Risk & Compliance management a critical part of operational and strategic decision making. [Risk & Compliance | Signavio Content Library](#)

**RPA at Scale** - Before diving into an RPA initiative, it is vital to capture and analyze your existing processes, using automated process discovery tools and insights from process participants. Only once processes are modeled can you make informed decisions about where automation can best be deployed. Taking the time to capture processes also helps you build a data-backed business case for RPA, going beyond buzzword appeal. [RPA at Scale | Signavio Content Library](#)

**ERP Transformation** - ERP transformation is a lucrative, yet undoubtedly risky endeavor. Despite the initial expense, bringing in a company-wide standardized software solution to streamline your processes, reduce human error, and easily extrapolate data analysis will result in long-term benefits. [ERP Transformation | Signavio Content Library](#)

**Major Federal Government and Commercial Customers:** JP Morgan Chase, Prudential, Walmart, Deloitte Consulting LLP, Seagate, SAP, Morgan Stanley, USAA.

**Integration Service Partners for Federal Government:** Longevity Consulting

**IT Platform Requirements (on premise and cloud):** Signavio Business Transformation Suite is a SaaS solution and currently deployed on AWS. <https://aws.amazon.com/rds/features/security/>

**Supported web browsers:**

- Chrome 50 or later
- Firefox 52 or later
- Microsoft Edge
- Internet Explorer 11
- Safari 10 or later
- Safari Mobile 10 or late

We do on-premise deployment if preferred as well.

**System Requirements Server (only relevant for On Premise):**

- Quadcore-CPU
- Operating systems: Windows®, Linux.
- Web server: Apache Tomcat® 8
- Database server: MySQL® Standard Edition, MySQL® Enterprise Editio.
- To use the feature “Approval Workflows for Process Diagrams”, the system requirements of the “Signavio Workflow Accelerator” product (see below) need to be applied as well. For more details regarding hardware and software please contact us

**For Process Intelligence solutions we would require access to various sources of your data:**

- Database tables of transactional systems (e.g. ERP and CRM)
- Analytical data (e.g. reports, BI, data lakes)
- Log files like (e.g. audit logs, change logs)
- CSV files and other data

**Licensing Structure:**

- Standard Software as a Service (SaaS) model with an annual subscription.
- Licensing for Process Intelligence module is based on number of processes being analyzed/monitored by the software.
- Licensing for Process Manager, Collaboration Hub & Workflow are based on number of named users.

Date:	03/04/2021
Company Name:	UiPath
Contact Name, Email, Phone No.	Jim Walker, <a href="mailto:jim@uipath.com">jim@uipath.com</a> , 201-914-6164
Product Name:	UiPath

**Company Overview:**

UiPath has a vision to deliver *A Robot for Every Person*, one where agencies enable every employee to use, create, and benefit from the transformative power of automation to liberate the boundless potential of people. Only UiPath offers an end-to-end platform for hyperautomation, combining the leading [Robotic Process Automation](#) (RPA) solution with a full suite of capabilities that enable every organization to scale digital business operations at unprecedented speed. The UiPath public sector team supports RPA deployments in 79 federal agencies, 16 states and several US cities and counties all of which are reporting positive outcomes from the thousand or more automations they developed to make government better. UiPath has already automated millions of repetitive tasks for over 65% of the Fortune 500 and 8 of the Fortune 10.

Named a [2020 CNBC Disruptor 50](#) company, UiPath was recognized as the fastest growing technology company in the Americas according to [FT Americas' Fastest Growing Companies 2020](#) and named the top company on [Deloitte's 2019 Technology Fast 500](#), a ranking of the fastest growing public and private technology companies in North America.

**Product Features, including Security:** Information on products, such as the white paper titled The Path to Digital Government, and on security, such as a UiPath Path Security Data Sheet, can be found on the UiPath website at this link:  
[https://www.uipath.com/product?utm\\_source=bing&utm\\_medium=cpc&utm\\_campaign=\[SL\]%20\[US\]%20%20Search%20-%20Brand%20-%20\[uipath\]&utm\\_term=uipath&utm\\_content=General%20-%20UiPath%20-%20Exact](https://www.uipath.com/product?utm_source=bing&utm_medium=cpc&utm_campaign=[SL]%20[US]%20%20Search%20-%20Brand%20-%20[uipath]&utm_term=uipath&utm_content=General%20-%20UiPath%20-%20Exact)

In addition to RPA, UiPath offers the following process discovery and intelligent document processing capabilities.

**Process Discovery:** The UiPath Platform is the only automation platform with integrated process mining, providing valuable business context and impact of automation on end-to-end processes. The goal is to understand your processes fully, fostering a cycle of continuous improvement that aids transformation initiatives, primarily through automation. Combine this powerful artificial intelligence use UiPath Task Mining to identify and aggregate workflows, then applies AI to map tasks to automation opportunities to rapidly build a high-value automation pipeline across the enterprise. Then use Task Capture as you move through a work process you'd like to automate, taking screenshots and gathering data for each step. Task Capture pulls everything together into a Process Definition Document (PDD) or XAML file—ready for dev teams to start automating. Where RPA eliminates repetitive and mundane task, our process discovery scientifically dissects your workflow and take the guesswork out of the requirements process to ensure developers deliver mission-ready robots.

**Document Understanding:** The UiPath automation platform understands agency need RPA and AI and offers AI Center to incorporate ML, AI, NLP, chatbots into the fully automated platform. Federal

agencies use UiPath Document Understanding to combine robotic process automation (RPA) and artificial intelligence (AI) to help robots extract and interpret data from different documents and ensure end-to-end document processing. The tool works with a wide range of documents from structured to unstructured, recognizes different objects like tables, handwriting, signatures, or checkboxes, and can deal with various file formats.

**Example Use Cases (Deployed Automations):** Our Customer Success Managers have recorded 835 use cases in our 79 agencies. Below are references to key clients that have elected to announce their automations. All entries are from January 2020 to present.

Clients	Outlet	Title
NASA	RPAToday.net	<a href="#">RPA in Space</a>
Department of State	Government Computer News	<a href="#">State Department sees RPA as path to help desk efficiency</a>
NJ Courts	Forbes	<a href="#">How New Jersey Uses Automation To Help With The COVID Pandemic</a>
CMS	NextGov	<a href="#">Teleworking can make it tough for agencies to keep a pulse on their personnel, but bots can help.</a>
CMS	SHRM	<a href="#">Bots Help Government Tackle COVID-19 Challenges</a>
DLA	FedScoop	<a href="#">Defense Logistics Agency RPA no AI</a>
NVIDIA	GovCon Wire	<a href="#">NVIDIA's Anthony Robbins: Agencies Should Harness AI, RPA to Free Up Employees for Mission Critical Work</a>
California DMV	TechWire	<a href="#">DMV transformation discusses automation taking service online</a>
NASA, GSA	FNN	<a href="#">NASA working on RPA security plan to set unattended bots in motion</a>
GSA, USDA	GCN	<a href="#">GSA bot builders add workforce capacity</a>
GSA, HHS, CMS, FDA, HUD, VA	FedScoop	<a href="#">GSA's coronavirus bot shows how RPA can supplement pandemic response</a>
DASA-FIM (ARMY)	Armed Forces Comptroller	<a href="#">Army Workforce Innovation: Robot Help Wanted</a>
HUD	HUD	<a href="#">Robotics Steals the Show at HUD</a>

#### Major Federal Government and Commercial Customers:

<p>UiPath has 79 federal deployments in the federal agencies below:</p> <ul style="list-style-type: none"> <li>Veterans Administration (VA)</li> <li>US Postal Service (USPS)</li> <li>US Patent and Trade Office (USPTO)</li> <li>US Federal Reserve Bank</li> <li>United Nations</li> <li>US Food and Drug Administration (FDA)</li> <li>US Department of Agriculture (USDA)</li> <li>Tennessee Valley Authority (TVA)</li> <li>Social Security Administration (SSA)</li> </ul>	<p>UiPath state and local is in TX, MS, OH, CA, NJ, NY, GA, FL, MD, VA and in several US counties and cities.</p> <p>Commercial customers include:</p> <ul style="list-style-type: none"> <li>Stryker</li> <li>DHL Global</li> <li>Nielsen</li> <li>The New York Foundling</li> <li>American Fidelity</li> <li>Clarian Chemicals</li> <li>Unitedhealth Group</li> </ul>
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Office of Personnel Management (OPM) National Science Foundation (NSF) National Aeronautics and Space Administration (NASA) Internal Revenue Service (IRS) Inter-American Development Bank (IDB) House of Representative Health and Human Services Ginnie Mae General Services Administration (GSA) Federal Aviation Administration (FAA) Department of Transportation (DOT) Department of State (DOS) Department of Labor (DOL) Department of Justice (DOJ) Department of Interior (DOI) Department of Housing and Urban Development (HUD) Department of Homeland Security (DHS) Department of Health and Human Services (HHS) American Red Cross Federal Reserve Bank Treasury	Home Depot Amazon Deloitte Flextronics Silicon Valley Bank Enate EDF Energy DWP – UK government works and pensions NTT Communications
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**Integration Service Partners for Federal Government:** The UiPath partner eco-system consist of a variety of outstanding partners. Boutique, niche, big-four and traditional companies providing services to the government and department of defense are all UiPath partners.

Accenture Federal Services	INFORMATION ANALYSIS INCORPORATED
Amplitude9, LLC	Infosys Americas
AnalisaBR	Integration Technology Group
Anika Systems Incorporated	Invoke Public Sector USA LLC
Ashling Partners	KPMG LLP
Atos Brasil Ltda	Longevity Consulting
August Schell	Macro Solutions
AutomateWork - Accelirate	Microsoft Corporation
Booz Allen Hamilton	Mind over Machines
Brilliant Corp.	Nolij Consulting
BRMi	Novatio Solutions
CACI International Inc.	Oracle America Inc (Technology Alliance)
Capgemini Technologies LLC - Americas	PersonalSoft SAS
Carahsoft Technology Corp.	Pricewaterhousecoopers LLP
CGI	Red River
Cognizant Technology Solutions	Roboyo US

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Deloitte US	RPA Now
EY Group	Science Applications International Corporation (SAIC)
Fusionworks, Inc.	Sehlke Consulting LLC
Genpact US	Symphony Ventures
Government Acquisitions Inc	Technologent
Greenlight Consulting	The Hackett Group, Inc.
Guidehouse	The Silicon Partners Inc
High Performance Consulting Group, S.C.	ThunderCat Technology LLC
HURON CONSULTING SERVICES LLC	Vertical Apps
IHS Automation	World Wide Technology LLC

#### IT Platform Requirements (on premise and cloud):

##### Studio:

- Windows/Windows Server/XenApp
- Any virtualized Windows supported

Full details <https://docs.uipath.com/studio/docs/software-requirements>

##### Orchestrator:

- Windows Server
- Any virtualized Windows supported
- Powershell
- SQL Server
- Net Framework
- IIS
- WebDeploy
- Redis (optional)
- Elasticsearch (optional)
- Kibana (optional)

Full details: <https://docs.uipath.com/orchestrator/docs/software-requirements>

##### Robots

- Windows/Windows Server/Xen Apps
- Any virtualized Windows Supported

Full details: <https://docs.uipath.com/robots/docs/software-requirements>

**Federal agencies from whom Authority to Operate (ATO) has been obtained:** All 79 federal agencies that have deployed UiPath are running robots on their operational network. All agencies listed above have either elected to perform a full ATO or have added UiPath to their security boundary.

**Is the product FedRAMP certified?** Like our peers UiPath operates on any FEDRAMP approved platform. We are running on the DLA Azure cloud and the IRS AWS cloud. Our Road Map includes getting FEDRAMP certification and we have an agency willing to sponsor our package.

**Licensing Structure:** Our product and SKU offering has grown and is still growing. Full details of options: <https://licensing.uipath.com/>

##### Orchestrator:

- UiPath - Orchestrator - Basic

- UiPath - Orchestrator - Standard
- UiPath - Orchestrator - NonProduction

**Unattended Robots:**

- UiPath - Unattended Robot - Concurrent Runtime
- UiPath - Unattended Robot - Test
- UiPath - Robot - NonProduction

**Named User:**

1. Process User - Named User
2. UiPath - Action Center - Named User
3. UiPath - Attended - Named User
4. UiPath - Tester - Named User
5. UiPath - Citizen Developer - Named User
6. UiPath - RPA Developer - Named User
7. UiPath - Process Developer - Named User
8. UiPath - Cloud Orchestrated Process Developer - Named User
9. UiPath - RPA Developer Pro - Named User
10. UiPath - Test Developer Pro - Named User

**Multi-User**

- UiPath - Multiuser Add-On
- UiPath - Action Center - Multiuser
- UiPath - Attended - Multiuser
- UiPath - Citizen Developer - Multiuser
- UiPath - RPA Developer Pro - Multiuser
- UiPath - RPA Developer - Multiuser

**Additional Platform Items**

- UiPath - Insights - Orchestrator Add-On - Nonproduction
- UiPath - Cloud Automation Hub - Standard
- Process Mining - Process
- Process Mining - Process NonProduction
- UiPath - Cloud Document Understanding Page Bundle
- UiPath - Document Understanding Page Bundle
- UiPath - Connector for Salesforce

**Federal Agency Purchasing Vehicle(s):** <https://www.carahsoft.com/uipath#contracts> list our vehicle that are in addition to contracts our partners have with the federal government.

## Authors & Affiliations

This white paper was written by a consortium of government and industry. The organizational affiliations of these contributors are included for information purposes only. The views expressed in this document do not necessarily represent the official views of the individuals and organizations that participated in its development.

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## Acronyms

AES	Advanced Encryption Standard
CFPB	Consumer Financial Protection Bureau
ETR	Exchange on Tax Rulings
EOIR	Executive Office for Immigration Review
CAC	Common Access Card
CDM	Continuous Diagnostics & Mitigation
CHESS	(Army) Computer Hardware Enterprise Software and Solutions
CbC	Country by Country Reporting
CONUS	Continental United States
CRS	Common Reporting Standard
CSBS	Conference of State Bank Supervisors
FATCA	Foreign Account Tax Compliance Act
DISA	Defense Information Systems Agency
DOI	Department of Interior
FDA	Food and Drug Administration
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act
GDPR	General Data Protection Regulation
GWAC	Governmentwide acquisition contracts
HIPAA	Health Insurance Portability and Accountability Act
IDIQ	Indefinite Delivery/Indefinite Quantity
ITES-SW2	Information Technology Enterprise Solutions – Software 2
KPI	Key Performance Indicator
LDAP	Lightweight Directory Access Protocol
NASPO	National Association of State Procurement Officials
NSF	National Science Foundation
OIG	Office of the Inspector General
PCI DSS	Payment Card Industry Data Security Standard
PKI	Public Key Infrastructure
SAAS	Software as a Service
SEC	Securities and Exchange Commission
SDLC	Systems development life cycle
SOC	General Data Protection Regulation
SOAR	Security Orchestration Automation & Response
TBM	Technology Business Management
USAC	Universal Service Administrative Co.
USCIS	US Citizenship and Immigration Services
USPIS	US Postal Inspection Service