



Robotic Process Automation (RPA) Enterprise Technology Guideline

1. Introduction

This Enterprise Technology Guideline (ETG) provides the official Office of Information and Technology (OIT) capability guidance and establishes the technology standard for Robotic Process Automation (RPA) in VA. The intended audience for this document is developers and IT project managers that are evaluating RPA to address business needs. This document will be revised periodically to reflect the latest tools available to IT stakeholders and their business partners, and it will be updated to reflect pertinent IT policy changes.

Confluence space:

<https://confluence.devops.va.gov/spaces/VAExternal/pages/95764335/Robotic+Process+Automation+RPA+Enterprise+Guideline>

2. RPA Business Case

Enterprise RPA software provides automated capabilities for business processes such as financial management, enterprise service desk ticket routing, and provider notification of open encounters. Other business processes where RPA is a good fit include patient registration processes, patient data migration, patient data processing, medical bill processing, insurance data automation, claim processing and call center assistance. They can also log in to applications, move files and folders, copy and paste data, fill in forms, and extract data from documents. VA employees benefit from having automated capabilities to help free up their time and focus on less repetitive work.

RPA software provides operating system APIs, optical character recognition (OCR) and image recognition. They allow users to configure software “bots,” which are automation scripts that emulate human activities by interacting with applications the same way a person does. Specific use cases for RPA are described in Section 5 for the available RPA platforms in VA.

3. RPA Platform Capabilities

The following key capabilities are required for all enterprise RPA platforms in VA.

- RPA Development:
 - Code-free recording studio that can be run on a VA Government-furnished equipment (GFE) laptop.



- Includes visual drag and drop from a rich library of pre-built activities to build workflows, declare variables and define triggers.
 - For more advanced RPA tasks (e.g., API integration), coding is required.
- RPA Management:
 - Scheduling and orchestration of automations.
 - Captures errors and failures in execution.
 - Access to runtimes and execution of the automations.
- RPA Runtime:
 - Provides a VA GFE-like environment to manage the production environment.
 - Integrates with RPA Development and RPA Management.

4. Available RPA Platforms in VA

The following RPA systems are currently in use as of the date of publication. This section will be kept up to date as the software landscape changes, and more capabilities are made available to support VA business partners.

Further information will be published in the Catalog of Developer Essentials (CODE) VA and will be referenced in future updates of this document: [Plugins](#) | [Tools](#) | [CODE VA](#).

VA RPA Platform: The VA RPA Platform is run by the VA RPA Center of Excellence (RPA CoE). This platform is a place where our VA business customers can develop, test, and run automations against VA products/systems. Residing in the VA Enterprise Cloud (VAEC) it conforms with the Cloud First initiative and the ability to scale easily. It consists of two RPA vendors: UiPath and Blue Prism. These are on-premises installs in the cloud and are maintained by the RPA Platform Team. The platform has a High Authority to Operate (ATO) to allow for PHI/PII use. The platform also encompasses the UiPath Automation Cloud solution, currently completing their initial FedRAMP ATO.

More information about the VA RPA COE, VA RPA Platform, licensing, and how to “Request-A-BOT” can be found on the following intranet site: [VA Robotic Process Automation Center of Excellence | Office of Information and Technology](#)

UiPath RPA: UiPath RPA is the on-premises installation in the VAEC. There is a development, preprod, and production environment to meet the needs of the customer. The RPA Platform team operates and maintains the base RPA software like Orchestrator and code libraries, while also being administrators to the virtual machines that are needed. Subscription licenses are available for purchase through the centralized contract the RPA CoE has in place.

UiPath Automation Cloud: UiPath Automation Cloud is an external SaaS and authorized at FedRAMP moderate. This system is run and maintained by the UiPath company. The VA



administers the access and roles available to conform with security standards and access is by PIV single sign on. Currently, access is limited to the Cloud Orchestrator. Development and runtime systems are VA GFE or in the VA RPA Platform in the VAEC.

UiPath RPA Platform: UiPath Automation Cloud is an external SaaS and authorized at FedRAMP moderate. There is also an on-premises version approved in the VA Technical Reference Model (TRM) for UiPath versions owned, operated, managed, patched, and version-controlled by VA. For more information about UiPath:

- [UiPath \(TRM\)](#)
- [UiPath Documentation Portal](#)
- [UiPath Academy: Robotic Process Automation Training](#)

More information about the specific UiPath systems available for usage in VA are at the following links to the VA Systems Inventory (VASI).

- [UiPath Automation Cloud \(VASI ID 2027\)](#)
- [RPA Platform \(VASI ID 2755\)](#)

Blue Prism Enterprise: Blue Prism Enterprise is the on-premises installation in the VAEC. There is a development, preprod, and production environment to meet the needs of the customer. The RPA Platform team operates and maintains the base RPA software like Orchestrator and code libraries, while also being administrators to the virtual machines that are needed. Development and Robotic subscription licenses are available for purchase through the centralized contract the RPA COE has in place.

Additional details about the latest VA approved version of Blue Prism:

- [Blue Prism Enterprise \(TRM\)](#)
- [Blue Prism Technical Documentation Site](#)
- [Blue Prism University](#)

Pegasystems: VA's Pegasystems application development platform includes RPA capabilities. The VA Financial Services Center (FSC) uses Pegasystems RPA tools to interface with the Financial Management System (VA FMS) to automate Electronic Funds Transfers (EFTs). Other RPA tasks support travel approvals via email, manual EFT rejects, manually mailing letters to veterans, etc. that will be automated. Pegasystems interacts with the TDY application using service accounts to automate the generation of new travel authorizations.

This system is hosted in the VA Microsoft Azure Government Cloud (FedRAMP High) and accessed through the VAEC (ECSOinfo@va.gov). More information about the specific systems available are at the following VA Systems Inventory (VASI) links.



- [Digital Business Services \(RPA\) \(VASI ID 2456\)](#)

Developer Guide: [Pegasystems Documentation](#)

VBA Mail Automation Platform: The VBA Automation Platform ([VASI ID 2522](#)) is configured as a managed service using Appian Business Process Management Suite (BPMS) that automates the triage and handling of mail associated with Veterans benefits. As part of compensation and pension (C&P) benefits delivery, VBA annually receives over seven million submissions containing around fourteen million documents through multiple intake channels such as paper mail, faxes, and electronic uploads. Many of these packets include standardized forms requiring specific actions, while others contain unstructured documents including correspondence or evidentiary documents used to substantiate claims. This Mail Automation Platform includes a graphical user interface to review mail packets, upload the documents into a repository, and, depending upon what documents are in the packet, create entries in a case management system (e.g., a claim) or processes a transaction (e.g., changing an address). All these actions occur through unattended automation by RPA bots and VBA employees provide the business rules and oversight needed.

Appian BPMS: [Appian Business Process Management Suite \(BPMS\) \(va.gov\)](#)

Technical Documentation: [VA EA Product Line Architecture \(PLA\) - VASI ID 2522 - All Documents \(sharepoint.com\)](#)

Blue Prism Enterprise: Blue Prism Enterprise, available through the Digital Transformation Center (DTC) executes a task or a series of tasks by mimicking a human's actions. This software is programmed to capture and understand information, process transactions, manipulate data, generate responses and communicate with other applications through systems' graphical interfaces. This tool is available to handle data scraping, rule-based audits, exception handling, data capture and validation, transactional processing, and read/write to databases.

- [Blue Prism Enterprise \(va.gov\)](#)
- [Technical Documentation](#)

5. RPA Platform Dos and Don'ts

The following DOs and DON'Ts apply to RPA.

DO

- Centralize RPA efforts to share information cross-organizationally.
- Brainstorm, foresee and mitigate roadblocks during RPA development.



- Select the right processes (such as repetitive, rule-based, high volume) for automation.
- Select processes with minimal or infrequent changes to reduce automation script maintenance costs.
- Attempt to identify all reasonable business and technical errors that could arise to reduce inefficiencies and maintenance needs.
- Thoroughly test automation scripts in a test environment before broader deployment.
- Monitor automations to validate improvements and to identify unanticipated exceptions.
- Conduct regularly scheduled performance testing for the automations.

DON'T

- Embed credentials, secrets, PII/PHI, or other sensitive data in automation scripts.
- Silo automation efforts among departments or geographies.
- Assume that automation is appropriate because the process appears to be “simple.”
- Automate a process that will be obsolete in the near-term or one that runs on a system or application that will be replaced shortly.
- Automate the process without evaluating it first, as it may be inefficient, cost-prohibitive, or non-standardized across departments.
- Assume automation scripts (bots) will automatically handle unanticipated exceptions.
- Scale aggressively without a proper plan.
- Assume after initial testing that automation cannot fail.
- Expect bots to run flawlessly without maintenance needs once deployed.

6. RPA Intake Process

OIT has developed the VA RPA lifecycle/intake process that depicts various phases of “Discovery,” “Solution Design,” “Development,” “ATD and Deployment,” and “Sustainment.” This process guides RPA developers and product managers to make the best choices about RPA for their solutions to address business needs: [RPA Lifecycle Process Flow](#).

7. Supplemental Technical References

- [VA Technical Reference Model \(TRM\)](#) – list of approved RPA software at the version level.
- [VA Software Factory Security Pattern Handbook](#) - provides security guidelines and specify minimum security requirements for software factory implementations at VA, which include the use of RPA software.



Appendix A: Document Version Control

Date	Version	Change Details	By
10/12/2022	0.1	Original Draft	OCTO/TAS
10/15/2022	0.2	Included digital transformation link to RPA. Added Benefits section.	OCTO/TAS
10/24/2022	0.3	Added potential VA use cases	OCTO/TAS
10/25/2022	0.4	Edits after first kickoff meeting from 10-25-2022	OCTO/TAS
5/18/2023	1.0	Final edits and formatting prior to publication	OCTO/TAS
9/13/2024	2.0	Annual refresh and validation for currency	OCTO/TAS
3/16/2026	3.0	Annual refresh and validation for currency	OCTO/TAS

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