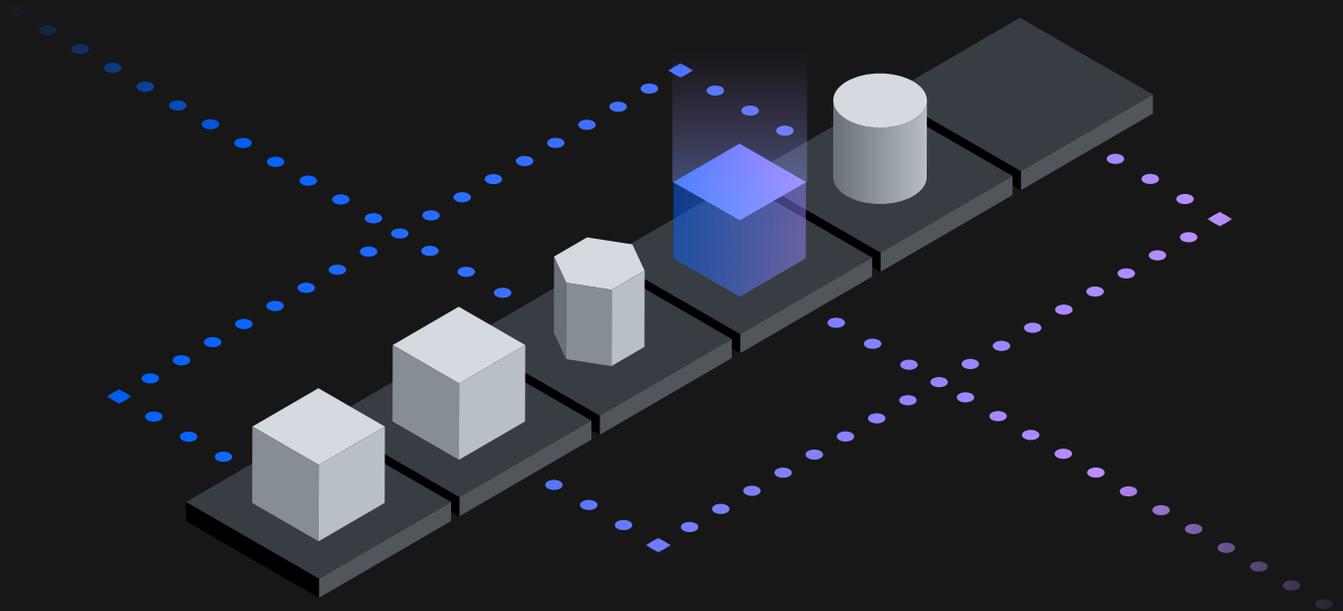




IBM Robotic Process Automation with Automation Anywhere V11

Solution Overview



Introducing IBM RPA with Automation Anywhere

The delivery of business processes typically involves several low value repetitive tasks like entering data or moving between multiple screens. These tend to be time consuming and error prone due to human involvement. Robotic Process Automation (RPA) offers excellent opportunities to automate these process activities.

IBM has entered a partnership with Automation Anywhere. IBM is selling, supporting and servicing IBM Robotic Process Automation with Automation Anywhere (IBM RPA).

Automation Anywhere is one of the leading RPA solution providers in the marketplace with the largest revenue share. They are ranked as a market leader by both Forrester and Everest Group. They are one of the most experienced RPA solution providers focused on enterprise solutions for back-office, mid-office and front-office.

What is RPA?

RPA enables companies to easily automate mundane, repetitive tasks in order to free up employees to perform higher value work. It does this by using software robots which simulate and mimic the actions of humans interacting with software application user interfaces. Robots can be “programmed” rapidly by recording what the user does. The robots are then managed centrally.

What are the benefits of RPA?

Accelerate Time to Value: Create, test and deliver new automations in days or weeks

Reduce Human Errors: Eliminate copy/paste mistakes and rework introduced by human errors

Increase Throughput: Fulfill automated tasks in seconds or minutes, around the clock

Decrease Development Costs: Develop automations quickly with simple record/playback functions.

Remix the Distribution of Labor: Allow employees to focus on higher value work

Extend RPA with Digital Labor

RPA can be enhanced with our automation capabilities to provide even more benefits. It is this combination which we refer to as *Digital Labor*.

- **Capture.** Datacap automates the extraction of data from unstructured content so software robots can automate the entire interaction.
- **Decisions.** With Operational Decision Manager (ODM) non-technical people can make the robots “smarter” by teaching them decision making for validation, pricing and other outcomes.

- **Workflow.** Business Automation Workflow (BAW) provides end-to-end orchestration of systems, people, and robots into a digital business process.
- **Content.** Enterprise Content Management (ECM) provides a central repository of documents that can be shared between robots and humans.

IBM Robotic Process Automation Benefits

IBM Robotic Process Automation with Automation Anywhere automates routine tasks quickly and cost effectively. RPA bots can easily integrate with your broader automation initiatives — such as process and decision automation, or data capture initiatives — to expand the value of your automation program.

Use IBM RPA for task automation if you are looking to:

- Scale your business and reduce operational costs while maintaining current staffing levels
- Increase productivity by reducing the time your employees spend on repetitive, manual tasks
- Provide more consistent and responsive customer service
- Reduce errors in data entry and processing
- Integrate legacy applications and systems without using custom application programming interfaces (APIs) or expensive integration software
- Deploy new automation schemes in hours or days by enabling business users to create their own RPA bots—no IT skills required

IBM is recognized as a leader in providing innovative business automation offerings. Our solutions enable our customers to quickly ramp up business-led automation programs to provide immediate business value across the enterprise.

IBM RPA with Automation Anywhere is based on these principles:

- **Easy to Use** – IBM RPA with Automation Anywhere is designed to be easy-to-use so less-technical subject matter experts and business analysts can play a very active role in defining and managing the implementations. Our innovative technology is designed to support robust business applications with a business-friendly experience, hiding the complexities of application deployment and management that most platforms expose to their users.
- **Flexible** – Implement anywhere in the business, in any technology environment. Mix and match public, private, and hybrid cloud environments to meet your cloud portfolio strategy.
- **Secure** – Architected for enterprise security standards and supports 3rd-party credential stores, including built-in CyberArk integration.
- **Centralized Control** – Unified enterprise-wide management of your digital labor with a centralized control room to define, deploy, and manage all your RPA.
- **End to End Compliance** – Automatic audit logs with detailed information for RPA governance and seamless compliance. Every event is captured and stored for future access.

Solution Overview

IBM Robotic Process Automation with Automation Anywhere is a robotic process automation solution that mimics the behavior of a human business user to perform repetitive tasks. IBM RPA provides an entry point into the world of automated digital labor and the digital workforce.

The Architecture is a traditional hub-and-spoke architecture consisting of three components:

- **Control Room.** The central management and control layer. Both Bot Creators and Bot Runners are authorized, controlled and managed from the Control Room.
- **Bot Creator.** The Bot development tool used to create, edit and test the Bots. Only Bot Creators can create or edit Bots.
- **Bot Runner.** The runtime systems that sit on desktops, data centers and cloud infrastructure.

IBM RPA with Automation Anywhere Enterprise Platform includes additional automation entitlements and capabilities, such as workflow, capture, content, and decision that expand RPA use cases for a broader range of processes to deliver higher business outcomes.

- **Capture**
 - Capture provides cognitive capabilities to extract data from structured and unstructured documents.
 - Categorizes, analyzes, and extracts structured data from documents received from a variety of sources. Supports multiple-channel capture by processing paper documents on scanners, mobile devices, multi-function peripherals and fax.
 - Uses natural language processing, text analytics and machine learning technologies, like those in IBM Watson, to automatically identify, classify and extract content from unstructured or variable documents.
 - The software can reduce labor and paper costs, deliver meaningful information and support faster decision making.
- **Decisions**
 - Provides the ability to define reusable complex business logic by using decision management expressed using natural language. Decisions can easily be maintained by business users by providing the agility to maintain and execute rules at the right time independently from the bot development lifecycle.
- **Workflow**
 - Adds enhanced bot orchestration and exception handling capabilities.
 - Orchestrates end-to-end processes where some tasks are performed by bots and others are performed by knowledge workers.
 - Routes bot exceptions to knowledge workers for corrective action in cases where automated bots fail.
 - Provides governance with how the bots are being leveraged to achieve business outcomes.
- **Content**

- Enables organizations to take full advantage of the customer information and company knowledge embedded in its content. ECM solutions
- Capture, store, activate, analyze and automate business content, providing new value from data that was previously unstructured and unavailable.
- When effectively managed across the organization, content can be used to engage customers, automate business processes and enhance collaboration.

Control Room

Control Room is the hub of the entire Robotic Process Automation (RPA) operation. Control Room provides a “single pane of glass” for enterprise-wide management and control. It is used to deploy, schedule, audit, and manage the bots from a central location.

The Control Room ensures reliable, scalable, and secure, bot deployment and execution. From this central vantage point, operators can push hundreds of tasks to the Bot Runners for execution with a simple mouse click. Bot Runners run on individual desktops or Virtual Machines (VMs) distributed across the Enterprise from desktops running in your data centers or in the cloud. The Control Room monitors and audits all scheduled and running Bots – in real time. Control room provides auditable management and control over your IBM RPA environment, including users, clients, bots, and schedules. It also acts as the single point of access and control for bot execution.

Control Room also features predictive operational analytics through the built-in dashboards. 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.

Workload Management

To support industrial-scale automation, IBM RPA includes Workload Management (WLM). Much more than a queue management system, WLM has been designed from the ground up to meet enterprise-class service level agreement (SLA) demands by allowing enterprises to manually prioritize high-value tasks and processes. WLM has built-in SLA calculators.

Automation Lifecycle Management

Providing an enterprise-grade governance framework, Automation Lifecycle Management (ALM) aims to improve process of developing automation. It forces bots to graduate through lifecycle stages as defined by the organization (e.g., development, testing, acceptance and production). It also helps organizations meet demands for compliance, such as CMMI Level 5 certification and SOX. ALM includes complete version control with check-in/check-out, version comparison, rollback, lock/unlock and more.

Bot Creator

Bot Creator is used for authoring and unit testing of automation. The Bot Creator includes powerful recording and editing capabilities.

Bot Recorders. IBM RPA offers three different recording capabilities to create automation tasks at the rapid speed with basic knowledge of tool. Using recorders, user can simply follow the steps as required normally to complete the process on computer screen and each step will

be recorded capturing object properties and events and automation script will be developed for same in the background.

- **Smart Recorder** – The Smart Recorder captures objects from various applications that use different technologies such as html, .Net, WPF, Java, Flex and Silverlight.
- **Screen (Standard) Recorder** – The Screen Recorder is used to record tasks that need to be run on the same machine in which it is recorded. It records mouse clicks and keyboard operations.
- **Web Recorder** – The Web Recorder understands all web controls. It is used recording browser based tasks. If website controls on a page move location, the program can locate the correct controls and adjust the task to run without error. If the properties of the web controls change, the automation task can be updated to ensure that the task runs successfully.

Task Editor. The Task Editor provides business process specialists and IT staff with all the tools necessary for enhancing, streamlining, and deploying automated tasks. The task editor is used it to create tasks manually. You can assign relevant actions to the task using the commands provided in the editor.

The Task Editor provides hundreds of commands that you can use to create automated tasks for your organization. It is unique in the software automation industry: non-technical business users can quickly build and deploy automated processes with simple drag-and-drop operations, yet the solution is flexible and robust enough for technical IT staff to build more complex, integrated tasks.

The Task Editor also provides extensive task debugging capabilities. Use the Debug Toolbar to manage debugging. The toolbar provides tools to watch variables, set breakpoints and set through task commands.

MetaBots. MetaBots are reusable automation building blocks which deliver speed and scalability to the automation landscape. MetaBots are built once and can be re-used across hundreds of tasks and, as a result, accelerate time to value. MetaBots enables compliance to organizational Standard Operating Procedures (SOPs) since MetaBots automation must be used as a black box and cannot be altered. MetaBots facilitates offline automation by allowing automation creation even when live application is not available. MetaBots provide extensibility to the RPA platform by enabling API-based integration with third-party applications. Automations created using MetaBots can be calibrated against any changes in the business application. This means that entire automation need not be changed with change in application and makes the automation resilient.

Bot Runner

Bots can run attended on local desktops or can run unattended via schedules or triggers. Bot Runners do not have any create or edit access to automation; Bot Runners can only execute bots. Once a bot is created and uploaded by the Bot Creator, the user on the Control Room can schedule and execute the Bot on an authorized Bot Runner.

Attended Bot Runner

A new ordering option for RPA with Automation Anywhere now includes an Attended Bot to enable a bot script to be triggered by human intervention versus the control room scheduler. These bots act like a personal assistant to an end user. Attended bots are licensed and measured based on the machine of an Authorized User, which is a unique person that is given access to the program

Security

The IBM RPA security architecture is based on Least Privilege principles and a strict Separation of Duty model. For logical separation of duties, the Control Room divides automation users into two broad categories: Bot Creators (development) users and Bot Runners (runtime) users. Bot Creators exist on a separate system with its own credentialing system and can create, update and unit test the Bots on the Bot Creator. Bot Creators can only upload and download Bots to and from the versioning system on the Control Room. Users on the Control Room may be granted privileges to execute bots on Bot Runners but have no access to the Bot Creators. This separation of duty constitutes a dual authorization by requiring both the developer and the business user to create and execute the bot.

Control Room implements Least Privileges and Separation of Duties through a configurable Role Based Access Control (RBAC) capability. All Control Room users must be assigned one or more roles. Access available based on the usage conditions assigned to each role that a user is a member of. Authorized users can also temporarily or permanently suspend users, per business needs. Roll Based Access Control enforces session handling to prevent any unauthorized use. If an unauthorized user attempts to view session details or to gain unauthorized access, the Control Room will not allow the user to proceed and will immediately terminate unauthorized user's session. This user will be forced to login with his/her own credentials again. Inactive accounts can be disabled.

Credentials are created in CR and are used across Bot Creators and Bot Runners. These credentials are securely stored in the centralized Credential Vault. To further facilitate access control, credentials are further divided in logical groups called Lockers. These Lockers enable complete separation between the credentials of one department from another's. E.g. users in the Finance department will be able to see credentials in the Finance locker, but not in the Accounting or HR department lockers.

IBM RPA provides integration with CyberArk, the leading privileged account security solution. Enterprises can decouple business applications' credential management from our platform. Bot Creators and Bot Runners will be able to use the credentials stored in CyberArk repository. Using CyberArk credentials, bots authenticate against business applications.

Citrix Automation with AISense

Citrix, and similar security environments, are image-based systems that do not lend themselves easily to automation. IBM RPA's AISense applies significant artificial intelligence capabilities to address this challenge.

AISense delivers intelligent image recognition through computer vision and AI techniques for Citrix, Delphi, Flex and remote desktop environments. Since a bot is only allowed to use mouse clicks and keystrokes in a Citrix environment, choices are restricted to image-based automation, coordinate-based automation and OCR- based automation. AISense for Citrix scans the application image, identifies UI elements (such as labels and text boxes) and automatically creates all the UI objects. AI-powered automation intelligently creates the dynamic linking between these objects.

AISense is agnostic to application changes and delivers complete automation even if the on-screen fields change position, the application changes colors, the zoom level is modified or the screen resolution is updated.

Automation Anywhere Bot Store

Automation Anywhere Bot Store is a marketplace for RPA bots that run on the Automation Anywhere Enterprise platform. It provides packaged ready to deploy functionality (MetaBots), accelerating automation and reducing time to value from RPA initiatives.

Best in class Bots are primed with state of the art process implementations, crowdsourced from a diverse enterprise ecosystem. Find the bots you need quickly with advanced category filters - for process type, industry, application, cognitive ability and more.

Bot Insights

Bot Insight is natively embedded in Automation Anywhere's RPA platform. It provides real-time business insights and digital workforce performance measurement by leveraging massive amounts of content-level and productivity data that the deployed bots generate, touch, interact with, and process.

The Bot Insight capability is separately licensed for use with RPA with Automation Anywhere Platform Enterprise.

Bot Insights authoring is a low-code / no-code environment. Developers simply tag any automation data variable of their choice using a simple checkbox. The bot will log all the variables that are tagged. Dashboards are generated automatically for every automated process. This enables business analysts to jump-start bot data analysis and visualizations without IT's help. Auto-generated dashboards can be customized, and their content further configured to provide the best insights to business audiences. The customized dashboards can be published for business consumption to enable interactive analysis on real-time production data.

Bot Insights are also used to monitor bot performance, troubleshoot bots and bot runners, and optimize Bot Runner environments for highest performance.

How IBM Can Help You Deliver a Successful Solution

IBM can be involved in your project design, implementation and delivery to whatever extent you deem appropriate. IBM offers the following categories of RPA services:

Learn. Learn the essential skills needed to work with IBM RPA. RPA overview and hands on training is developed by IBM and delivered via IBM's Global Training Partners.

Start. An *RPA Discovery Workshop* will build your RPA strategy and roadmap. It will evaluate and prioritize candidate use cases for RPA.

Prove. IBM offers complete *Bot Build* services to bring a working solution in to production. This includes: software installation and configuration and bot design, test and deployment.

Scale. *Enterprise Roll Out* services will optimize and operationalize your deployment and transform your entire organization with enterprise wide RPA program management.

Get More Information and Start a Free Trial

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- Experience our hands-on [Product Tour](#)
- Try our [Built a Bot Tutorial](#) and [Extend Bots with Workflow Tutorial](#)
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