Introduction of Automation Anywhere

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- Automation Anywhere is one of the popular RPA tools that provides powerful features to automate complex business tasks.

- It is used to automate such processes that are repetitive, rule-based, and manually performed by humans. It offers end to end automation strategy for organizations.

- Automation Anywhere is a web-based management system.

- It has a Control Room that helps in managing automated tasks. It is mainly used at the enterprise level and changes the way the enterprises operate.

- The primary aim of Automation Anywhere is to offer scalable, secure, and resilient services to its users.

History of Automation Anywhere

Automation Anywhere is an <u>RPA</u> tool designed by Automation Anywhere, Inc. The company was initially founded in 2003 under the name Tethys Solutions, LLC. Back in 2010, the name was changed to Automation Anywhere, the company's flagship product name.

Why use Automation Anywhere

The selection of the RPA tool depends on the requirements of any enterprise. However, there are several other things that force enterprises to choose Automation Anywhere. According to the official site, more than 700 global enterprises have deployed RPA solutions by Automation Anywhere. It has provided the industry-leading RPA platform that allows enterprises to empower their employees.

Some of the important reasons why enterprises should use Automation Anywhere are listed below:

1. **No Programming**

   There is no requirement for coding skills or any programming knowledge. According to the enterprise's requirements, one can easily use recorders to record the manual actions and edit them using the task editor.

2. **No Errors**

Automation Anywhere provides error-free automation. It eliminates human errors by automating the tasks properly.

3. **Fast Deployment**

   Automation Anywhere delivers the fastest deployment of RPA solutions. It can be set up and running within a few weeks.

4. Fast Performance

   It saves time with the fast automation processes.

5. **Precise Engineering**

   Automation Anywhere is designed to provide a visionary roadmap and adds innovations for enterprises with automation techniques.

6. **Security and Compliance**

   Automation Anywhere includes enterprise-level security with its inbuilt governance and compliance controls.

7. **Experienced Leadership**

   Automation Anywhere has deployed RPA solutions for several enterprises. It has many experienced RPA professionals who can automate the business processes to achieve good ROI.
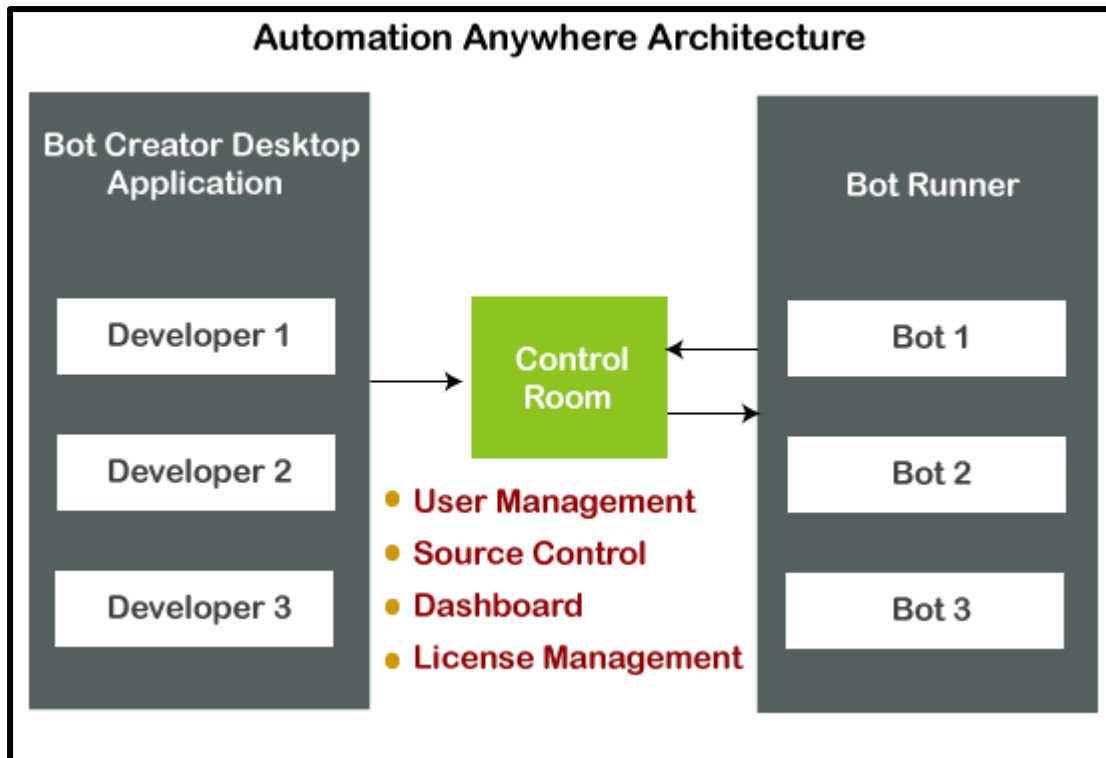
8. **Scalable**

   Enterprises can easily and quickly scale up automation in the future using Automation Anywhere. It can be used to scale from Desktop to Data Centre.

Automation Anywhere Architecture

Automation Anywhere has a distributed architecture. It offers a centralized management system by using its control room. The architecture of Automation Anywhere is separated into two components, Bot Creators and Bot Runners. Both components are attached to the Control Room.

Take a look into the following diagram that displays the structural view of Automation Anywhere Architecture:

The core components of Automation Anywhere architecture are:

Bot Creators

As the name speaks, Bot Creators are used for creating bots. They offer developers a desktop-based application and tools that validate against an active Control Room and help in the creation of bots. The configured code of the bots is stored in the Control Room. Multiple developers can upload, download, or create individual bots/tasks and execute all of them at the same time.

Control Room

The Control Room is said to be the most important component of the Automation Anywhere architecture. It is a web-based server that deals with the bots created by Bot Creators. It acts as a controller that controls the entire execution and management of clients, scripts, roles, credentials, security, etc. All of the automated tasks/scripts are uploaded in the Control Room. Control Room further manages and schedule the execution of the task in the host server or machine. It also offers features such as **user management, source control, license management, automation deployment, and a dashboard:**

- **User Management**

  Control Room adds ability for administrators to manage user access to different systems, applications, or networks.

- **Source Control**

  Control Room helps in the management of the codes for the bots. It makes the sharing of code easier across different systems.

- **License Management**

  Control Room manages the purchased licenses for Automation Anywhere. Automation Anywhere has two types of licenses, such as:

  1. **Dev License:** This license allows access to create, edit, and run a bot.
  2. **Run License:** This license allows access only to run a bot. We cannot create or alter a bot.

- **Automation Deployment**

  Control Room provides options for the deployment of automation bots.

- **Dashboard**

  A dashboard provides full insights of Automation Anywhere bots. It also displays the number of running bots, failed bots and passed bots, etc.

Bot Runners

The Bot Runner is a set of machine-level code that is used to execute the bots. Several bots can be simultaneously executed. To run the bots, Run License is required. Bot Runners are run-time clients that are usually installed on windows based systems. The Bot Runner can report back the execution status to the control room.

Other Important Products of Automation Anywhere

Some other important products of Automation Anywhere are:

- **Bot Insights**

  Bot Insight is a tool that allows users to analyse the performance of bots. It displays graphs and statistics to measure each bot's performance. It also enables users to calculate the time that a user has saved with the automation. It is said to be the first analytics solution used for bots. Bot Insights uses real-time business insights with digital workforce performance.
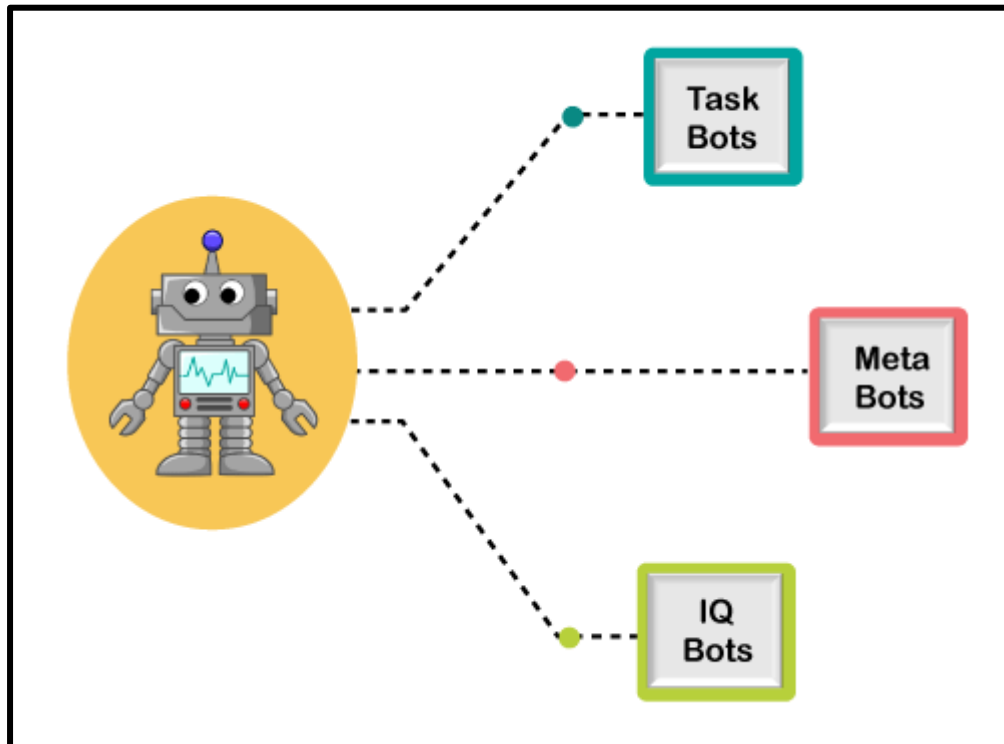
- **Bot Farm**

  Bot Farm is a tool used for the expansion of the number of RPA bots. It is integrated with the Enterprise edition of Automation Anywhere. Bot Farm can also scale the capacity of the digital workforce with a single-click deployment anytime from anywhere. It allows users to develop, deploy, and manage hundreds or thousands of bots, ensuring the elasticity and scalability.

- **Bot Store**

  Bot Store is the first digital marketplace that contains several pre-built bots for different business automation tasks. It allows enterprises to deploy different bots such as application bots, process bots, and cognitive bots in a short period.

Types of Bots in Automation Anywhere

There are three types of bots used in Automation Anywhere:

- **Task Bots**

  Task bots are bots that are used to automate rule-based, repetitive tasks. Task bots are usually beneficial in document administration, claims management, HR department, IT etc. They enhance productivity, error reduction, and cost-saving.

- **Meta Bots**

  Meta bots are known as automation building blocks that facilitate scalability with next-generation integration. These are designed for complex, scalable processes. If there is a requirement of any change in the process, we have to perform some edits to the bot. The changes will be automatically applied to all the processes linked with that specific bot.

- **IQ Bots**

  IQ Bot is an advanced tool that includes the capability of thinking like a human. IQ bots are also referred to as Cognitive bots. These bots are developed to learn on their own and perform the tasks according to it. IQ bots use advanced cognitive technology and advanced artificial technologies that enable users to experience the power of automation. These bots include features like self-learning, decision making, and subject matter expertise, etc. These bots can extract data from semi-structured and unstructured data

Automation Anywhere Features

Automation Anywhere has several unique features that make it notable amongst RPA tools. Check out the following important functionalities available in this RPA tool:

- **Task Editor**

  Automation Anywhere allows users to generate tasks with the help of a task editor. The task editor provides a toolbox, and users can easily drag and drop the items from the toolbox to generate a task. Task editor also allows users to edit, modify, break down, or improve the recorded tasks. The task editor has more than 380 actions. Some of the important actions are Windows Actions, Database Actions, Files/Folder Actions, Conditional Actions, Keyboard & Mouse Actions, Internet Actions, Loop Actions, and Clipboard Actions.

- **Workflow Designer**

  This feature allows enterprises to create simple, easy to understand graphical-interface of the business processes. It is used to automate multiple tasks in a queue, including alternate path locations, that is executed when there is any failure in the primary process execution.

- **Report Designer**

  This feature allows users to generate and print the insight that displays the statistics of the execution logs of any particular task. It can also be used to create custom reports or insights. The report designer provides options such as Workflow Timeline, Task Timeline, Task Run, Visual Logs, and ROI reports, etc.

- **Trigger Manager**

  Trigger manager is used for processing any task or workflow based on the other process, service, or task such as start/stop, system change, file or folder change, etc.

- **Workload Management**

  This feature is used to prioritize the process for execution. Workload management (WLM) allows enterprises to manually set the high-value processes inside the automated queue to fulfill the enterprise's requirements. It uses hundreds or thousands

of software bots to satisfy the demand and ensures better optimization for process automation.

- **Recorders**

It is one of the top features of Automation Anywhere. It allows enterprises to record, save, and test their actions. It follows the user's actions and creates a bot according to it. There are no programming skills required to develop bots as recording any task is more straightforward than manually coding it. There are three types of recording option available in Automation Anywhere:

1. **Smart Recorder:** It is used to capture whole actions, just like object cloning.
2. **Screen Recorder:** It is used to capture actions like mouse clicks and movements, keyboard operations, etc.
3. **Web Recorder:** It is used for extracting data from the web. It accurately records user-actions and further automates web-based tasks without the requirement of any coding or programming language.

- **Image Recognition and OCR**

Image recognition is used to read objects of an image as well as compare it with other images. It can also read or recognize an image from any document or the entire web page. Similarly, OCR (Optical Character Recognition) recognizes an image and converts the image data into text or characters in an excellent way.

These are the important features present in Automation Anywhere. Apart from that, there are several other features such as **lifecycle management, operational analytic, Citrix automation, visualization, screen scraping, web data extraction, centralized backup, security, data recovery,** etc.

Processes we can automate with Automation Anywhere

Almost all the repetitive and rule-based digital processes can be controlled by Automation Anywhere. It uses GUI to control the processes just like a human. It can also automate complex processes and efficiently complete them.

Some of the important processes that can be automated using Automation Anywhere are:

- Data extraction and submission
- Data comparison and validation
- All windows and web-based user actions
- Navigation through web, windows, cloud, legacy systems
- Rule-based decisions

Industries using Automation Anywhere

The tool is designed in such a way that it can benefit many types of businesses by automating business processes across multiple machines. Because at least someone in every organization performs manual, repetitive, and time-consuming tasks, therefore, almost any industry you think can benefit through automation.

Some of the popular industries that use this tool are as follows:

Industries Using Automation Anywhere	Applications of Automation Anywhere
Financial/Banking/Accounting	Invoice processing, data entry, data validations, data migration between banking application, reporting, auditing, customer account management, form-filling, claim processing, etc.
HR	Automating tasks in PeopleSoft. Email notifications and populating, etc.
Operations/Technology	Creating accounts, software set-up, system integrations, application integrations, batch processing, hardware and software testing for functional, load, and mobile performance, etc.
Telecommunications	Data collection and consolidation from client phone systems, backing up data from client systems, automatic data uploads, gathering data about competitor pricing, and phone

	manufacturing information, etc.
Sales	Invoice creating and printing, adding or removing customer data in CRM, etc.
Marketing	Creating lead generation reports, monitoring social sentiment, etc.
Manufacturing	Inventory management, ERP automation, data monitoring, automating logistics data, product price comparisons, etc.
Government	Verification process, automating daily reports, integrate legacy systems with updated systems, populating subcontractor forms, etc.
Healthcare	Reporting for doctors, patient data migration and processing, medical bill generation, insurance data automation and claim processing, automation of claim status and eligibility criteria, patient record storage, etc.
Hospitality	Price analysis and comparison of competitors, guest data processing, verification of data, payment processing, account generation, etc.
Retail	Extracting product details from manufacturer's websites, automatically updating online inventory and item information, importing site and email sales, etc.
Consumer goods	Data entry, order processing, order status updates, claims processing, resolution consulting, FTP automation, incentive claims updates, etc.

Future Scope of Automation Anywhere

The market for RPA is growing rapidly. More than 3 million positions have been opened so far for manufacturing automation and robotics. According to the report by McKinsey & Company, it is predicted that RPA will have a significant economic impact of nearly $5.2 to $6.7 trillion by 2025. Because this is code-free, anyone can learn automation anywhere without the requirements of any coding or programming skills.

Operating experts, marketing specialists, and digital marketing personalities with a primary knowledge of programming can easily adopt this tool. All engineers who want to pursue a career in robotic process automation can go with automation anywhere.

There are several roles in Automation Anywhere, such as:

- Developer (70 % Job Openings)
- Manager (20% % Job Openings)
- Architect (10% % Job Openings)

As you can see, the most crucial role is that of the developer; therefore, there are more opportunities as an RPA developer. You can be a better RPA developer with little or no programming knowledge.