



Mainframe and Robotic Process Automation (RPA)



Robotic Process Automation (RPA) is a practical, non-invasive way to automate enterprise processes. Using software robots to perform tasks boosts productivity, while preserving applications and IT infrastructures. RPA can be used to leverage mainframe data for increased productivity, reduced errors, and improved service.

Reasons for RPA:



Avoid performing repetitive tasks.



Protect legacy applications from errors.



Improve service to customers with reduced service time.



Streamline time-consuming workflows.



Boost risk management.

Leveraging Mainframe Data with RPA Initiatives

Organizations want to increase business efficiencies and improve service to their customers¹. Robotic Process Automation (RPA) can help by automating interactions with current desktop, web, and legacy applications. Robots interact with applications and systems in the same way as we do, but are faster, more accurate, and highly secure; they save time, reduce costs, and free employees to work on other projects. And with the help of Rocket Software technology, enterprises can leverage the business-critical data locked up in mainframe applications for their RPA initiatives.

Quick View

Access:

Leverage data wherever it resides.

Automate:

Save end users from repetitive tasks.

Cleanse:

Reduce data-entry errors.

Streamline:

Make workflows more efficient.

Compete/Win:

Stay ahead of the competition.

Mitigate risks:

Reduce threats.

Analysts, including Gartner², have written about the growing popularity of RPA, as the market is “driven by digital business demands as organizations look for ‘straight-through’ processing”. They continue, “RPA is the fastest-growing software sub-segment officially tracked by Gartner, with year-over-year growth of more than 63% in 2018.” And a recent study³ found “98% of IT business leaders say automating processes is essential to ongoing business success.”

If the mainframe is next for RPA, it is important that the mainframe team leads the work in your organization⁴ rather than, for example, the security, or customer operations functions, who are less likely to understand the specific needs of the platform. The mainframe team needs to lead this initiative as interacting with a desktop- or web-based application is typically straightforward. However, data on host systems typically requires special skills, such as a connector.

With so much important business data housed on the mainframe, enterprises must leverage it to increase productivity, reduce errors, and improve customer service, through their RPA initiatives. Whether RPA developers prefer to integrate via web services or more traditional Application Programming Interfaces (APIs), such as HLLAPI, or .NET, Rocket can support developers’ integration initiatives.

Challenges with RPA and the Mainframe

Challenges are ever-present, and marketplace changes mean organizations must factor in more elements as they automate their processes. Today, end-users can be partners, people accessing information from a kiosk (unknown users), or a robotic user. Furthermore, users now deploy a wider range of devices than ever before — laptops, tablets, thin clients, and smartphones.

Expense

Automation takes time, and while it can reduce the long-term expense of manual processes, it is itself a costly exercise. While technology usability has improved, building business-critical automations still needs time — and the right skills.

User errors

Even the most experienced end user can get things wrong, introducing the errors that lead to inaccurate data in business-critical systems. Spelling mistakes are perhaps the simplest form of errors to pollute business data. On the other end of the spectrum, advanced features — like macro recording and automation tools — are powerful, but introduce greater potential for causing business disruption.

Integration and orchestration

Automating a business process can mean going beyond automation and integrating applications. Accessing all relevant data on various disparate systems and then sharing it appropriately may require a more holistic approach than the current environment readily supports.

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1 www2.deloitte.com/content/dam/Deloitte/fr/Documents/services-financiers/publications/deloitte_global-robotics-survey-2018-full-report.pdf and www.microfocus.com/media/white-paper/enterprise-requirements-for-robotic-process-automation-wp.pdf

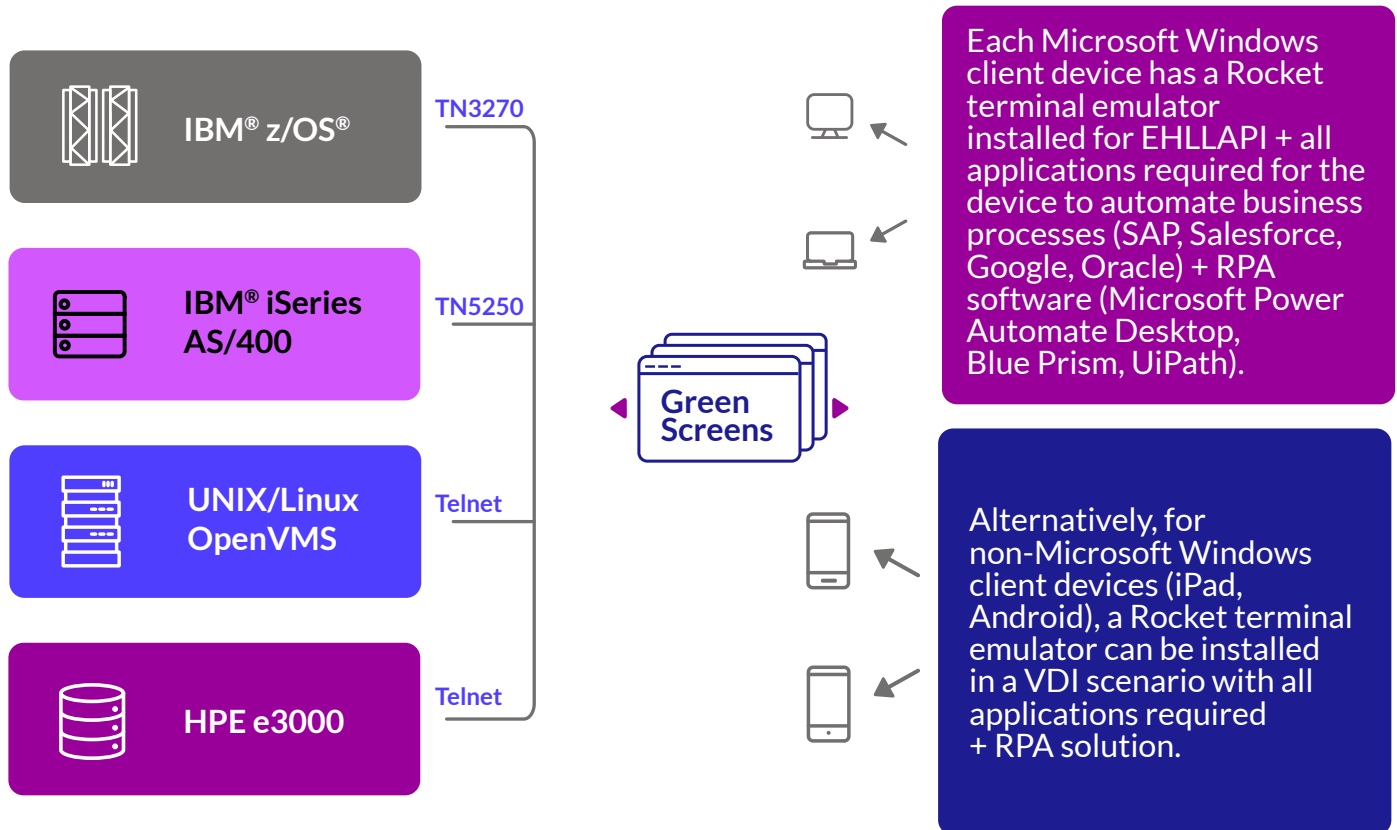
2 Gartner, Market Share Analysis: Robotic Process Automation, Worldwide, 2019, Fabrizio Biscotti, Varsha Mehta, Arthur Villa, Bindi Bhullar, Cathy Torn bohm, May 26, 2020

3 <https://towardsdatascience.com/all-the-robotic-process-automation-rpa-stats-you-need-to-know-bcec22eaad9>

4 <https://blog.syncsort.com/2018/06/mainframe/9-mainframe-statistics/> and www.datacenterknowledge.com/industry-perspectives/mainframe-lives-what-does-mean-it-ops-teams

Rocket Robotic Process Automation (RPA)

“The Mainframe Data Connector”



Rocket Software Approaches to RPA and the Mainframe

Rocket Software provides a range of options for enabling the integration of host 3270/5250-based data into their RPA initiatives. Whether RPA developers prefer to integrate via web services, or traditional APIs, like HLLAPI or .NET, Rocket Software has the programmatic interfaces to support any developer's integration initiatives.

Service-enabling the mainframe

The more scalable method requires developing distinct procedures against host-based applications that perform units of work as consumable web services, while the RPA tool calls on these web services as needed in an automated process. The approach is referred to as service-enabling the mainframe (or host). Rocket® Verastream pays dividends on this robust RPA approach.

RPA and AI

As general market RPA tools evolve to support advanced functionality, like artificial intelligence (AI), developers can build their mainframe integrations even more efficiently.

Traditional automation interface for the mainframe

IBM®'s HLLAPI has been the green-screen data access standard for more than 30 years. In this scenario, the RPA tool accesses host data by leveraging HLLAPI through a terminal emulator and corresponding green screen. All RPA solutions support this standard interface for mainframe data access. Our solutions include this data via a desktop-based terminal emulator. Because many organizations are HLLAPI-savvy, this can be a faster way to leverage mainframe data in an RPA-based automated process.

RPA use cases range from attended, where a human end-user kicks off an automated business process leveraging robots to automate repetitive tasks, to fully unattended, with no human user involvement⁵. Examples of automation from the Rocket® Reflection Desktop* product that support the attended use case include:

- The Reflection Events Mapper enables users to configure specific actions, such as running a macro when a host session triggers an event. A simple configuration wizard guides the human user as they set up events, or rules, as they apply to a mainframe screen. They prompt action from the emulator without any coding required.
- Rocket Reflection Desktop Plus UI modernization feature is a drag-and-drop design tool that enables users to redesign a green screen application UI to include modern drop-down boxes and calendar controls.

Learn more about [Rocket Reflection Desktop](#).



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