Robotics Process Automation

Technology Service Provider Assessment

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EXECUTIVE SUMMARY

Madison Advisors offers a variety of services designed to help technology providers identify and capitalize on market opportunities. In the last few years, Robotic Process Automation (RPA) has been ranked as one of the most rapidly growing and influential business technologies. The growth and expanded capabilities have caught the attention of various industry experts. They are evaluating the functionality, capabilities and return on investment of this technology and are working to predict the short, near and long-term impacts of RPA along with the advanced use of Automated Intelligence (AI) software.

Many enterprises are still reliant on legacy systems that require a great deal of manual intervention for routine, repetitive tasks. Executive leaders are recognizing the need for digital transformations across many areas of the organization. These transformations must focus on productivity and utilize tools to enhance efficiencies while reducing risk. RPA bot technologies provide solutions to automate traditional workflows that involve repetitive and rules-based tasks, including extensive data entry tasks and interfaces with other software technologies.

A successful digital transformation strategy utilizing RPA should include expected high levels of security, support and governance. Equally important are options for rapid deployment without extensive IT resource requirements, along with advanced analytics and reporting.

Madison Advisors has reviewed three top performers—Automation Anywhere, Blue Prism and UiPath—due to their experience in providing enterprise solutions with the appropriate security, scalability and advanced analytics. A summary of this analysis and key factors to consider when evaluating an RPA solution are included in this document.

RESEARCH METHODOLOGY

Madison Advisors conducted research of three top RPA performers identified by leading industry experts. Madison Advisors' primary focus was to identify technology solution providers (TSPs) with advanced capabilities for the following features:

1) Ease of deployment and scalability
2) Product and user support
3) Business continuity
4) Cognitive capabilities
5) Bot maintenance – security and compliance
6) Automation capabilities with legacy applications and various data formats

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7) Analytic and reporting capabilities

8) Financial strength

The methodology selected for Madison's review of TSPs was designed to address the key elements that an organization entering into the RPA market should consider in their analysis and selection.

Ease of Deployment and Scalability

Many of the key players within the TSP market have proven results in providing easy-to-use, "low code" bots that allow finance, human resources and enrollment departments to eliminate common, repetitive tasks. TSPs with mature professional services teams bring knowledge and expertise in the form of playbooks to make the initial implementation as well as long term scalability easier and better. These playbooks support the actual business users to build their own bots, thus speeding up implementation times and providing clients with a "quick win" to justify their technology investments. These user defined bots are often designed to address inefficiencies of legacy system tasks that are still highly dependent on human oversight and governance.

More difficult functions may require supplier support by introducing the technology with easier tasks to promote a quicker path to acceptance by users and internal IT. Additionally, TSPs should offer advanced developer capabilities that accommodate multiple types of programming languages.

Bot technology's success is based on the scalability of the bots across multiple environments and millions of data points for seamless workflows. The lifecycle automation of a TSP's solution should span from development to production with repeatable processes. As mentioned previously, bots developed by business users can be deployed quickly, thus increasing the scalability of the products.

Scalability relies on architecture that allows the technology to run off multiple servers with flexible licensing. Ultimately, architectural flexibility is the key to scalability. This includes built-in tools for automated scale up and down, both on-prem and cloud infrastructure, flexible licensing and ability to provide attended, unattended and intelligent document processing.

Scalability/Ability to Manage Large Scale Implementations	Automation Anywhere	Blue Prism	UiPath
Manage Lifecycle of Bot Code	●	◑	◑
Manage Varying Workflows	●	◑	◑
Product Scalability	●	◕	◑
Licensing Flexibility	●	◑	●
Process Mining	◔	◑	●

Table 1 – Scalability

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Product Support

The level of support offered is worth careful consideration. TSPs offering internal 24 x 7 support are preferred over 3rd party technical support models due to the up-time service level needs within industries investing in RPA, including Enterprise, Banking/Finance, Insurance, Telecom and Healthcare. The functions sourced to RPA technology often have sensitive timeframes to support downstream functionality, which demands robust performance metrics.

Other product support capabilities to consider include:
- Implementation service models
- Initial and ongoing training and certifications
- Dedicated customer service representatives
- Global support options to avoid delays in support due to time zone differences
- Support models should include outlines for new release schedules and include ongoing support for past releases for a defined time period, allowing the client to schedule upgrades in conjunction with internal release schedules
- Opportunity for participation in user groups

TSPs evaluated in the market vary greatly on their implementation, training and ongoing support. Evaluation scores in this area must be considered before making a technology decision.

Business Continuity

Organizations implementing RPA technologies demand robust performance metrics from the TSP partners due to the sensitive nature of the functions performed. High availability, the ability for a system to remain functioning without interruption, is considered table stakes for RPA solutions. A combined strategy of on-premise and cloud support for the bots with close monitoring and scheduled supervision will ensure the availability of the technology.

A proven disaster recovery (DR) solution is also expected with an RPA solution as organizations will quickly become dependent on the technology to manage mission critical processing. A one-hour recovery for activating a DR site is considered acceptable and TSPs should test this availability on a routine basis. Detailed logs should be available to provide information on the last record/transaction completed prior to the outage to ensure that the DR process is started and ended without duplication.

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Company Advantage	Automation Anywhere	Blue Prism	UiPath
End-to-End RPA Solution; Cognitive and Analytics	● (full, red)	◐ (half)	◐ (half)
Attended and Unattended Automation	● (full, red)	◐ (half)	◔ (quarter)
Customer Deployment Size	● (full, red)	◐ (half)	◐ (half)
Enterprise Customers References	● (full, red)	◐ (half)	◔ (quarter)
RPA Skilled Developers	● (full, red)	◐ (half)	● (full, red)
Product Support			
Business User Friendly	● (full, red)	◐ (half)	◔ (quarter)
IT User Friendly	● (full, red)	● (full, red)	◔ (quarter)
Product Vision/Roadmap	● (full, red)	● (full, red)	● (full, red)
Supported Product Releases	● (full, red)	● (full, red)	◐ (half)
Global 24 x 7 Support and Professional Services	● (full, red)	◐ (half)	◔ (quarter)
Access to Customer Success Managers	● (full, red)	◐ (half)	◔ (quarter)
Integration with Technical Partners	◔ (quarter)	◔ (quarter)	● (full, red)
Business Continuity	● (full, red)	◔ (quarter)	◔ (quarter)

Table 2 – Company Advantages

Cognitive Technology

While the introduction of RPA within an organization is a great first step, the capabilities of the RPA bot technology are limited to repetitive tasks with structured data that can be automated with a specific set of rules applied using basic metrics, allowing the users to evaluate the processes. Examples include gathering data, making basic calculations with available data, routing data and documents for review and approvals and completing repetitive tasks such as month end journal entries.

Industry road maps point to the inevitable merging of RPA with AI to tackle more advanced functions. Cognitive technology is a subset of AI that allows the bots to analyze, gather, reason and learn information much the way human workers do. This rapidly developing technology is transforming document-centric processing as the bots use the interaction with humans and other machine sources to "learn" how to manage unstructured data inputs, such as PDFs, JPG files and emails in a manner similar to the handling of structured data. In addition, advanced intelligent document processing tools have solutions to process multiple document types within a single process. Examples include procurement and invoice processing where the

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data is gathered from multiple sources, including unstructured formats to simplify accounts payable processing.

Cognitive processing, properly implemented, can significantly reduce the cost and complexity of document centric processing. Additionally, integration with enterprise level software tools, such as ERP systems, Citrix environments, and Microsoft tools, are proving to be table stakes for maximizing the solution's automation capabilities. TSPs that have implemented these tools or have them on their short-term road maps will continue to distinguish themselves as the leaders in the industry.

Automation with Legacy Applications

Organizations in every mature industry may still be saddled with legacy applications. RPA solutions designed with legacy systems in mind provide greater value for an organization in search of a TSP. Legacy applications will require the solution to work with various data structure for both structured and unstructured documents. The ability of the solution to interface with a legacy system can bring about standardization and organization-wide automation quickly. Designing bots to emulate newer versions of legacy applications will reduce maintenance and the dependency on legacy applications providers, thus saving organizations considerable licensing fees spent on outdated technologies.

Automation Capability	Automation Anywhere	Blue Prism	UiPath
Bots are Inherently Smart with Built-in AI Capability	● (full)	◔ (quarter)	◐ (half)
3rd-Party Integration with Best of Breed AI Products	● (full)	◔ (quarter)	● (full)
Intelligent Document Processing	◔ (quarter)	◐ (half)	◐ (half)
Predictive Analytics	◔ (quarter)	◐ (half)	◐ (half)
ERP Integration	◔ (quarter)	◔ (quarter)	● (full)
Microsoft Integration	◔ (quarter)	◔ (quarter)	● (full)
Citrix Environment	● (full)	◔ (quarter)	● (full)
Automate Structured Data	● (full)	● (full)	● (full)
Automate Unstructured Data	● (full)	◐ (half)	◐ (half)
Vision Skills	● (full)	◐ (half)	◐ (half)
Reusable Automation	● (full)	◔ (quarter)	● (full)
Change Resistant Automation	● (full)	◐ (half)	◐ (half)

Table 3 – Automation Capability

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Maintaining Bots

Security & Compliance
Many enterprises considering RPA technologies have expressed concerns about managing the security around bot technology. TSPs have addressed this concern largely with role-based access controls and adherence to industry standard processes controls.

Role-based access mimics the security controls assigned to their human counterparts. Roles can be based on a variety of criteria including job function, business units and other security access controls. Logical separations of duties between bot development and the actual bot workflow management is recommended as an additional security control.

Controls: Solutions designed for secure transactions such as banking and insurance will require a TSP that has passed the stringent requirements of industry standard security processes such as ISO, FISMA, FedRAMP and credit card data processing.

Change Resistant Automation
Ongoing maintenance of bots is an area that many TSPs recognize as an important success factor for timely implementations and ongoing customer satisfaction. Change resistant automation techniques can be applied to bots to make them application resilient. As changes are made to underlying applications and user interfaces attached to bot technology, these bots are designed to recognize the updates and readjust automatically without human intervention. This technology allows users to focus on building new bots without having to keep up with ongoing application updates.

Analytics and Reporting
Transparency into the performance of an RPA solution is vital for the success and growth of the technology within an organization. Real-time, interactive, detailed level reporting on the business value captured by the digital workforce will provide undeniable proof for an organization's return on investment expectations.

Management dashboards that provide instant results and audit-friendly logging of performance metrics, error tracking, manual interventions and time to resolution become an organization's window into the technology. Tracking should include individual desktops and servers, including the communications between the devices. Dashboards should be customizable based on client need and become an invaluable tool in the overall success of the implementation and ongoing business operations.

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Security and Auditability	Automation Anywhere	Blue Prism	UiPath
Role-Based Access Control (RBAC)	● (red)	● (red)	◕ (three-quarter)
Analytics and Reporting	● (red)	◑ (half)	◑ (half)
Control from a Central Location	● (red)	◑ (half)	◕ (three-quarter)
Scheduling Capabilities	● (red)	● (red)	● (red)
Trigger Capabilities	● (red)	◔ (quarter)	● (red)
Regulatory Compliance	◑ (half)	◑ (half)	◔ (quarter)

Table 4 – Security and Auditability

Financial Strength

As in all technical partnerships, the financial strength of the TSP selected is a key component to consider during the selection phase. Of the top providers of RPA services, only a few are publicly traded. However, other large providers have published information on significant investment and funding opportunities. TSPs that invest heavily into their operational support and product development distinguish themselves as the leaders in innovation and client satisfaction.

CONCLUSIONS

Enterprise adoption of RPA technologies is growing at a rapid pace and technology service providers are racing to keep up with the evolving demands with advanced solutions for attended and unattended automations. Enterprises evaluating an RPA solution should consider the financial viability of the service providers as a key indicator for the long-term technology commitment. The landscape of TSPs is in flux with new niche players entering the market. Service providers possessing a strong background of stability and innovation is an important consideration in the selection criteria.

Additionally, the ability of the TSP to provide advanced cognitive capabilities and intelligent document processing brings newer features, including more automation and functionality. The workflows built have smooth interfaces with other 3rd party providers to create secure, end-to-end, auditable processes between the desktop and server environments. This exciting and quickly evolving technology is transforming simple, day-to-day tasks and changing the game for enterprises seeking automation, growth and cost savings.

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Susan Cotter
Senior Program Manager / Analyst

Susan brings over 20 years of experience in consulting in the business communications and business process outsourcing industries to Madison Advisors. With an extensive knowledge of strategic account and data management, Susan is well-versed in customizing solutions for business process re-engineering and the outsourcing of business-critical back office functions using technology to achieve automation. As part of Madison Advisors, Susan has served as a program manager for a large-scale print and mail outsourcing project, coordinating multiple phases of execution and managing the associated risks with both the client and the end customer.

Prior to Madison Advisors, Susan worked as a Client Solutions Executive for EDM Americas for six years, where she oversaw new business development and project management within existing key accounts by driving business process reengineering and developing ROI's for outsourced document management services. Susan also previously served as Vice President of Active Data Services, and was Client Services Manager for Lason Systems Inc.

Susan holds a B.S. in Business Administration from University of North Carolina, Chapel Hill, NC.

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Madison Advisors offers research and consulting services that provide objective analysis, client-specific guidance and in-depth market knowledge in Customer Communications Management (CCM). Madison Advisors' industry-neutral expertise enables enterprise organizations, service providers and technology providers to achieve their strategic objectives around Customer Communications Management. Drawing upon our extensive experience and leveraging the latest research and industry data, Madison Advisors helps organizations fully examine their Customer Communications Management (CCM) strategy—with a focus on how CCM supports a positive customer experience and engagement to continue to keep pace with consumer expectations.

Madison Advisors offers services and expertise primarily through short-term, high-impact consulting services. With no-nonsense, quick engagements (measurable in days or weeks, not months), Madison Advisors directly helps our clients achieve very hard and specific return on investment (ROI) related to their print and electronic communications initiatives.

Madison Advisors' analysts are dedicated to technology and market research that is delivered through short-term project engagements as well as articles, publications and presentations. We specialize in customer communication technologies including enterprise output management, content management, customer relationship management, e-billing, and infrastructure technology.

For more information about Madison Advisors, visit our web site: www.Madison-Advisors.com.

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