The Forrester Wave™: Robotic Process Automation, Q1 2017

The 12 Providers That Matter Most And How They Stack Up

by Craig Le Clair

February 13, 2017

Why Read This Report

In our 28-criteria evaluation of robotic process automation (RPA) providers, we identified the 12 most significant ones — Automation Anywhere, Blue Prism, Contextor, EdgeVerve Systems, Kofax, Kryon Systems, NICE, Pegasystems, Redwood Software, Softomotive, UiPath, and WorkFusion — and researched, analyzed, and scored them. This report shows how each provider measures up and helps enterprise architecture (EA) professionals make the right choice.

Key Takeaways

Automation Anywhere, Blue Prism, And UiPath Lead The Pack

Forrester's research uncovered a market in which Automation Anywhere, Blue Prism, and UiPath are Leaders. WorkFusion, Pegasystems, NICE, Kryon, EdgeVerve, and Redwood are Strong Performers with competitive options. Kofax, Contextor, and Softomotive are Contenders.

EA Pros See RPA As An Essential Part Of An Enterprise Automation Strategy

RPA is gaining the interest of enterprises, as many are under immense pressure to digitize operations.

Governance, Control, And Analytics Are Key Differentiators

As the RPA market matures, governance to control, test, and document apps; analytics to build smart knowledge bases that find new and less-used patterns; and advanced control capabilities will dictate which providers will lead the pack. Vendors that can advance in these areas position themselves to successfully deliver RPA solutions to their customers.

Whatfix Inc. Exhibit 1031 Page 1

The Forrester Wave™: Robotic Process Automation, Q1 2017

The 12 Providers That Matter Most And How They Stack Up

by Craig Le Clair
with Alex Cullen and Madeline King
February 13, 2017

Table Of Contents

2 **RPA Addresses A Backlog Of Tactical Process Enhancements**

Robot Management And Governance Are Primary Enterprise Concerns

Analytics Will Become The RPA Battleground

3 **Service Companies And Specialists With RPA Practices Are In Demand**

4 **Robotic Process Automation Evaluation Overview**

Evaluated Vendors And Inclusion Criteria

7 **Vendor Profiles**

Leaders

Strong Performers

Contenders

15 **Supplemental Material**

Related Research Documents

Digitization Leaders Share Robotic Process Automation Best Practices

The Future Of White-Collar Work: Sharing Your Cubicle With Robots

The RPA Market Will Reach $2.9 Billion By 2021

The State Of Robotic Process Automation

FORRESTER®

Forrester Research, Inc., 60 Acorn Park Drive, Cambridge, MA 02140 USA
+1 617-613-6000 | Fax: +1 617-613-5000 | forrester.com

© 2017 Forrester Research, Inc. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. Unauthorized copying or distributing is a violation of copyright law. Citations@forrester.com or +1 866-367-7378

RPA Addresses A Backlog Of Tactical Process Enhancements

RPA is gaining the interest of enterprises. Forrester has taken 100 inquiries on RPA in just the past six months. It's easy to see why. Enterprises are under immense pressure to digitize operations, and they see a future where routine operations are fully automated. These enterprises see RPA as part of their automation strategy, as RPA:

- **Boosts productivity with minimal process change.** Robots can replicate human tasks without affecting underlying systems. As a result, the process in place is unchanged, eliminating data integration and analysis efforts.
- **Brings an easy-to-calculate ROI.** The cost of an RPA robot will range from $5,000 to $10,000 annually. In some use cases, there is a one-to-one relationship between a robot and a worker. In others, a single robot replaces three to five workers. Savings are easy to calculate.
- **Is a fresh alternative to the "big spend" of typical BPM programs.** Business process management (BPM) as a technology strategy too often drives a wedge between the business and the technology management organization. BPM has a legacy of long implementations and fuzzy business cases — the opposite of RPA. The head of robotic processing at an Irish bank put it in stark terms: "The minute you use the BPM word, it is five years and £5 million."

Robot Management And Governance Are Primary Enterprise Concerns

So far, the business has taken the RPA lead. Small automation groups pop up and start robotizing with tech management brought in as an afterthought. Forrester estimates that, by 2021, there will be over 4 million robots doing office and administrative and sales and related tasks.[1] That's a lot of robots running loose. Management of robots and their governance will be a growing issue. Advanced analytics will exacerbate these concerns as vendors push RPA to greater value. Our research found:

- **Governance basics are being defined as we automate.** The tech management group at one oil and gas concern put a halt on replacing 100 people for finance and accounting postings with RPA robots. Why? The company required the same governance rigor for RPA that the SAP host system had, and its current vendor fell short. But providers are responding: Connectivity monitoring, out-of-the-box version control apps, centrally controlled rollback capabilities, and testing procedures for application changes are top road map items for our evaluated vendors.
- **Process knowledge gaps create new governance issues.** Human process knowledge is an undervalued commodity. And once programmed into the robot, much of it disappears. The fear? With the people now gone, there is no one to second-guess the machine. Like the bakery that depends on a mix, with the original recipe lost, the operation has a new form of exposure. Governance that includes process documentation and audit trails for decisions made are needed to fill that gap.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 3

- **Central control of robots is an evolving capability.** Compared with other technologies related to artificial intelligence (AI), RPA vendors have a head start in managing robot activity, but control room consoles still struggle to manage their own bots. Several vendors had newly released central control rooms. End-to-end visibility across robots with a real-time rolling view was subpar for half the field. Key features needed include central control of work queues, schedules, execution rules, and support to "spin up" and stop robots. These features reduce the need to edit scripts for individual robots. Support for high availability/disaster recovery and network load balancing was generally stronger across providers.

Analytics Will Become The RPA Battleground

Office and administrative tasks are fertile ground for RPA, but today, "obtuse RPA" only handles routine work. AI can lift RPA with smart knowledge bases that find new and less-used patterns, memorize those patterns, and support them to handle complex exceptions. We found:

- **RPA vendors are damp with "AI washing."** In three years, the RPA-spawned robot will use AI to understand an issue, make a decision, and process the request.[2] But today's integrations with AI to support RPA processing were rare, with a few exceptions. EdgeVerve implemented a chatbot for a technology company that will launch RPA scripts based on user interactions. Several vendors had integrated a voice or chatbot interface into their RPA platforms, had customers in beta test, or had self-service portals or interactive voice response (IVR) deployments on their road maps, but only a handful had live integrations.
- **Vendors take different paths in their AI road maps and analytics depth.** We relied on RPA vendor road maps, the number of current AI projects underway, and depth in analytics to compare vendors. We found that RPA AI support will take one of two forms: 1) RPA vendors will develop their own AI algorithms and incorporate them into their products (e.g., WorkFusion and Pegasystems), or 2) RPA vendors will link to AI platforms from cloud or open source partners, such as Microsoft Azure ML or IBM Watson (e.g., Kryon and Blue Prism).
- **RPA analytics today targets process assessment and user interface (UI) integration.** Most products today use text analytics, image processing, text search, or optical character recognition to meet RPA needs. For example, applications on desktops or the web change frequently. Often that change creates issues for robots that link to them. Analytics can better understand those changes and help robots adjust. In addition, several vendors used analytics to understand process and user behavior.

Service Companies And Specialists With RPA Practices Are In Demand

Forrester counts 38 RPA product vendors, but there are even more — over 50 and counting — professional service firms that deliver RPA. It's easy to see why: Design environments to build robots, while improving, quickly drop to programming and script languages.[3] And identifying use cases to

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 4

robotize and setting up reporting, controls, and governance are new challenges. As a result, a diverse professional services landscape has emerged with large business services firms and RPA specialists. We see that:

- **Service firms will gear up for RPA deployment.** Skipping the "as is" analysis gets right down to business. Yet, firms should plan on implementation costs that are equal to or surpass license fees. A growing number of service firms want to help. Cognizant has the broadest partner palette with seven partners and counting and depth in the US health payer industry stemming from the recent Trizetto acquisition.[4] Others, like Genfour, deliver back-office automation services with Blue Prism, UiPath, and Celaton inSTREAM.[5] Wipro works with more than 30 customers primarily partnered with Automation Anywhere, with a bright future that links RPA to the Holmes AI platform. Atos has launched RPA as part of the Canopy Cloud platform, primarily to support IT service management (ITSM).
- **Some service firms take a strong product focus.** Infosys has taken a product approach with EdgeVerve and was the only large services firm in our evaluation. Tata Consultancy Services has a full line of robot modules to extract, consolidate, format, and sequence work. Tech Mahindra straddles the product and service approach with its own RPA product and several partnerships.
- **RPA specialists are making their mark.** Verint packages contact center and customer service expertise with the Kryon RPA product. IPsoft developed Amelia, a robotic cognitive agent backed by RPA to support enterprise process automation. Several RPA vendors focus on ITSM: L&T Technology services combines RPA with Microsoft Azure Machine Learning to solve tech management issues. Arago and Ayehu are RPA product companies that focus on IT process automation for tech management and security professionals.[6]

Robotic Process Automation Evaluation Overview

To assess the state of the RPA market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top RPA vendors. After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 28 criteria, which we grouped into three high-level buckets:

- **Current offering.** Forrester reviewed robot development functions; control room, system management, and reporting; RPA analytics; architecture; use case breadth; and deployment flexibility, governance, and security.
- **Strategy.** We reviewed each vendor's vision, innovation approach, and planned enhancements, as well as its partnership approach, corporate strategy, and target markets.
- **Market presence.** We looked at installed base of customers, revenue growth, services, number of employees, and technology partners. We estimated numbers where vendors would not disclose actual figures.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 5

Evaluated Vendors And Inclusion Criteria

The RPA product landscape includes enterprise-level, full-corporate solutions that can support the requirements of a "shared service" or enterprisewide RPA utility. Forrester included 12 vendors in the assessment: Automation Anywhere, Blue Prism, Contextor, EdgeVerve Systems, Kofax, Kryon Systems, NICE, Pegasystems, Redwood Software, Softomotive, UiPath, and WorkFusion. Each of these vendors (see Figure 1):

- **Has a product orientation, as opposed to a service orientation.** There is a rapidly expanding RPA service and integration community. For this evaluation, the RPA vendor must actively market and promote an RPA software platform for the RPA market. This means that enterprises must be able to deploy RPA independently of the software provider and have business process outsourcing or systems integration partners.
- **Has strong breadth of RPA functionality.** Participants must support a broad range of use cases, such as attended operations in contact centers; unattended, server-based solutions for finance and accounting; data pooling and collection; or ITSM. These capabilities need to be well integrated and supported and administered through a cohesive platform.
- **Markets actively in at least two major regions.** Primary RPA regions are North America; Europe, the Middle East, and Africa; Asia Pacific; and Latin America. Each vendor must have existing clients in at least two regions and either a direct sales presence or partners that are actively distributing and implementing its solution.
- **Meets the minimum revenue requirements.** RPA vendors must have at least $3 million in total software revenue derived from RPA.
- **Has significant market share or is an innovator developing new capabilities.** Vendors must have a market share presence for RPA or be a leader in providing innovative solutions. Each vendor was required to provide five references, representing a diversity of industries, company sizes, and geographies, that have had its RPA software in production for at least one year.
- **Generates strong customer interest.** Through Forrester inquiries, consulting engagements, media requests, and ongoing conversations with players in the market, we developed an understanding of the demand for the vendors and solutions included in this evaluation.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 6

FIGURE 1 Evaluated Vendors: Product Information And Selection Criteria

Vendor	Product evaluated	Version
Automation Anywhere	Automation Anywhere Enterprise	10 LTS
	Bot Insight	1.1
	BotFarm	1.0
	IQ Bot	4.0
Blue Prism	Blue Prism	V 5.1
Contextor	Contextor Interactive, Studio, and Galaxy	3.1
EdgeVerve Systems	AssistEdge	AssistEdge SE 8.6.1
Kofax	Kofax Kapow	v10
Kryon Systems	Leo	4.3.8.2
NICE	NICE Robotic Automation	6.4
Pegasystems	Pega Robotic Automation & Intelligence	8
Redwood Software	Redwood Robotics	3
Softomotive	ProcessRobot	
UiPath	UiPath 2016.2	UiPath 2016.2
WorkFusion	Smart Process Automation	8.0

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 7

FIGURE 1 Evaluated Vendors: Product Information And Selection Criteria (Cont.)

Vendor inclusion criteria

Each vendor included in this evaluation:

- **Has a product orientation, as opposed to a service orientation.** There is a rapidly expanding RPA service and integration community. For this evaluation, the RPA vendor must actively market and promote an RPA software platform for the RPA market. This means that enterprises must be able to deploy RPA independently of the software provider and have business process outsourcing or systems integration partners.
- **Has strong breadth of RPA functionality.** Participants must support a broad range of use cases, such as attended operations in contact centers; unattended, server-based solutions for finance and accounting; data pooling and collection; or IT service management. These capabilities need to be well integrated and supported and administered through a cohesive platform.
- **Markets actively in at least two major regions.** Primary RPA regions are North America; Europe, the Middle East, and Africa; Asia Pacific; and Latin America. Each vendor must have existing clients in at least two regions and either a direct sales presence or partners that are actively distributing and implementing its solution.
- **Meets the minimum revenue requirements.** RPA vendors must have at least $3 million in total software revenue derived from RPA.
- **Has significant market share or is an innovator developing new capabilities.** Vendors must have a market share presence for RPA or be a leader in providing innovative solutions. Each vendor was required to provide five references, representing a diversity of industries, company sizes, and geographies, that have had its RPA software in production for at least one year.
- **Generates strong customer interest.** Through Forrester inquiries, consulting engagements, media requests, and ongoing conversations with players in the market, we developed an understanding of the demand for the vendors and solutions included in this evaluation.

Vendor Profiles

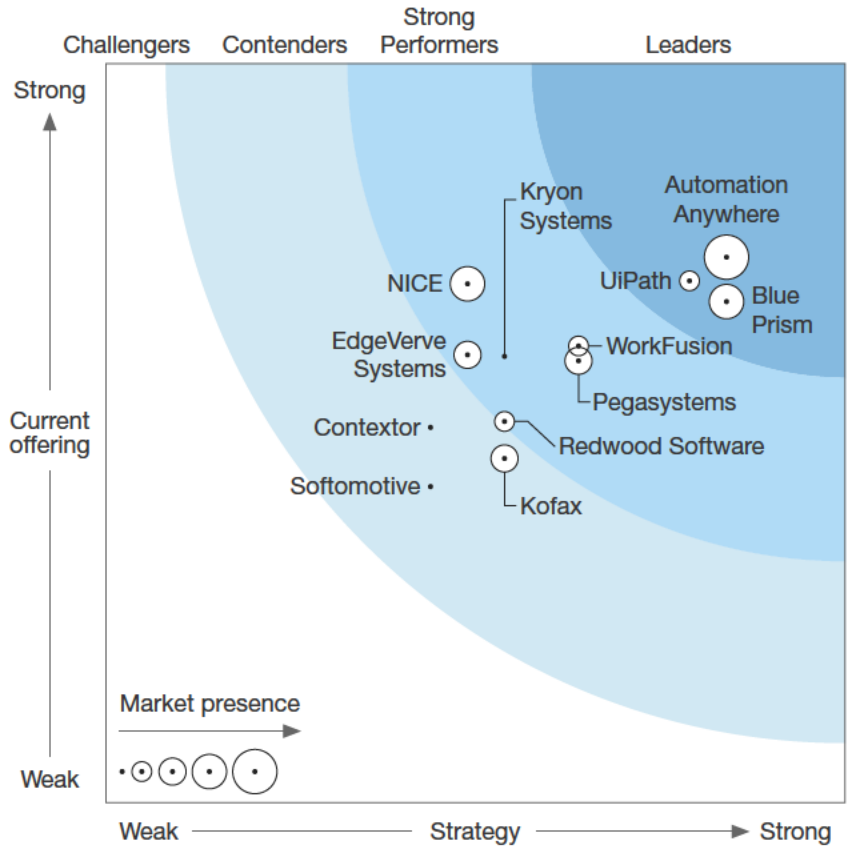
The offerings are quite diverse, each one with its own unique set of strengths and weaknesses. We encourage readers to use this evaluation of the RPA market as a starting point only; they should view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool (see Figure 2).

Because many clients have made strategic investments in complete RPA platforms, Forrester broadly included a complete list of capabilities. As a result, enterprises should use the custom Forrester Wave features of our model to emphasize the use case area of interest — e.g., attended operations, advanced analytics, or Citrix deployments where the goal may not be complete enterprise coverage.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 8

FIGURE 2 Forrester Wave™: Robotic Process Automation, Q1 '17



FORRESTER RESEARCH
The Forrester Wave™

Go to Forrester.com to download the Forrester Wave tool for more detailed product evaluations, feature comparisons, and customizable rankings.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

FIGURE 2 Forrester Wave™: Robotic Process Automation, Q1 ’17 (Cont.)

	Forrester's weighting	Automation Anywhere	Blue Prism	Contextor	EdgeVerve Systems	Kofax	Kryon Systems	NICE	Pegasystems	Redwood Software	Softomotive	UiPath	WorkFusion
Current Offering	50%	3.69	3.39	2.54	3.03	2.33	3.02	3.51	2.99	2.58	2.14	3.53	3.09
Bot development and core functions	20%	3.70	2.50	3.10	2.85	1.65	3.45	3.60	3.25	2.35	2.85	3.25	2.30
Control room, system management, reporting, and resilience	10%	2.80	3.80	2.25	3.25	2.75	3.25	3.25	2.45	3.50	2.85	3.80	3.45
RPA analytics	10%	3.66	2.00	1.66	3.34	2.00	2.33	2.33	3.00	1.34	2.00	3.66	3.00
Architecture	10%	4.33	3.66	3.00	3.67	2.67	3.66	4.33	3.34	2.67	1.99	3.99	2.99
Breadth of use case	10%	4.10	3.40	3.00	2.35	1.90	2.05	2.00	2.65	1.60	2.25	2.75	2.15
Deployment, governance, and security	40%	3.66	4.00	2.33	3.00	2.67	2.99	3.99	2.98	3.00	1.66	3.66	3.68
Strategy	50%	4.25	4.25	2.25	2.50	2.75	2.75	2.50	3.25	2.75	2.25	4.00	3.25
Vision, execution, and strategy	100%	4.25	4.25	2.25	2.50	2.75	2.75	2.50	3.25	2.75	2.25	4.00	3.25
Market Presence	0%	4.50	4.00	1.00	3.00	2.50	1.00	3.50	3.00	2.00	1.00	2.00	2.00
Installed base	100%	4.50	4.00	1.00	3.00	2.50	1.00	3.50	3.00	2.00	1.00	2.00	2.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Leaders

› **Automation Anywhere is the current market share leader.** Automation Anywhere (AA) delivers an enterprise-grade digital workforce platform. AA’s primary targets are shared services like procure-to-pay, quote-to-cash, human resources administration, claims processing, and other back-office processes, with an equal balance of direct and channel customers. AA’s work is 90% back office and 10% front office. It has the largest trained ecosystem, approaching 10,000

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 10

certified RPA implementers globally with over 150 in R&D, and is the largest RPA provider from a revenue standpoint.

AA has strong market momentum, based on Forrester inquiries and supported by a self-reported 167 new customer wins in 2016. Programming skills are required to design robots, and overall usability needs improvement. Reporting overall is not as "out-of-the-box" as we would like — for example, it could be easier to build dashboards. Extensive audit detail is captured, but making it useful takes effort. The product runs well in a Citrix environment, but an improved structure to run unassisted automation using virtual desktop integration (VDI) is needed. AA is often selected for overall ease, duration, and cost of deployment.

› **Blue Prism is an innovator that first saw RPA as distinct from BPM.** A group of process automation experts formed Blue Prism in 2001. Secure, scalable, and central management of a virtual workforce of software robots in regulated industries is the company's focus. Its go-to-market approach is indirect — it has a strong partner focus and dependency, with 80% of revenue from license fees. Blue Prism offers an end-to-end process view that results in work distribution and queue management strength. Central control of all RPA functions is well suited to its regulated industry focus. The solution has strong load balancing, restart functionality, encryption at rest, and audit, as well as desktop-aligned robots that are defined and managed centrally.

Compared to many software providers, Blue Prism has a strong moral center. It is clear on what the product will do and religious about what it will not. This is refreshing but leads to lightness in some table-stakes features, such as user-controlled desktop recording. The design studio, like most in the field, can benefit from improved usability. Growing pains in certain geographies are appearing as partners struggle to keep up with proof-of-concept demand. Analytics will be required for Blue Prism to maintain its innovation track record for RPA. Those firms looking for evidence of real-life success in enterprise environments for "server-based" unattended use cases will continue to short-list Blue Prism.

› **UiPath provides an open platform well suited for complex automation.** Founded in 2005 in Romania, UiPath started out developing software development kits (SDKs). Today, its software products eradicate tedious, redundant tasks with robots. The vendor does not do direct implementations; rather, its success is based on appeal to integration partners and savvy end users who like to extend robotic automation using standard scripting and programming environments. UiPath's open approach is well received. The design studio is based on Microsoft's Workflow Foundation, and the NuGet version control is packaged with the product. Reporting capabilities use open source Elasticsearch for data gathering and Kibana for visualization. The solution has a strong architecture. Robots run on desktops but do not require a separate virtual machine. Servers handle management and control tasks.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 11

The open strategy would be enhanced with the launch of a full community for RPA developers. Cognitive capabilities need to be enhanced to parse unstructured data and integrate natural language processing and chatbots, so as to not fall behind competitors. Improved work distribution and scheduling, SLA-based workload distribution, and control tower management of front-office robots are also needed. Overall, UiPath is a one of the stronger RPA platforms, geared for independent-minded partners and customers.

Strong Performers

› **WorkFusion moved from cognitive assessment to execution.** Headquartered on Wall Street, WorkFusion started five years ago with machine learning for worker performance assessment, to score, match, and rank work output. In 2015, the vendor turned to RPA. It specializes in conversational understanding to improve how people interact with machines. It is not focused on sales and related "attended" use cases but on operational processes and "unattended" use cases with financial services as a sweet spot.

Later to the market than others and not as purely focused on the RPA game plan, it is light for "attended" use cases and table-stakes desktop automation such as recording features, but it is well positioned for advanced exception management, which is core to the future of RPA. Near-term releases will add recording features to accelerate robot design. A virtual agent capability for attended use cases and improved facilities for nonprogrammers to create rules and test against changes will improve the product. As a future direction, WorkFusion represents the best path in the field for analytics-based RPA automation. Thought-leading enterprises will weigh WorkFusion's analytics strength against its current RPA shortfalls.

› **Pegasystems merges robots, analytics, and case management.** Enterprises are often not sure how RPA fits with other process tools. Pegasystems made this a bit clearer as the first and only BPM market participant of substance to purchase an RPA provider (OpenSpan). The newest release of Pega Robotics combines OpenSpan with a limited-use license for Pegaystems' case management and BPM products, which now come with an RPA purchase. Work can be routed between robots or humans. OpenSpan brings a decade of experience to large contact centers like Florida Blue, HSBC, and Telstra, among the largest and longest-running RPA installations in the field.

Pegasystems has worked rapidly to plug holes required for broad and rapid growth in the RPA market. For example, a control tower, recording capability, and other table-stakes features were just included in the mid-2016 release. The Visual Basic design studio is reliable, but it must become more intuitive and updated. Pegasystems needs to continue to improve the management console and provide more out-of-the-box RPA-specific reporting and auditing. Future integration with Pegasystems' Decision Hub predictive analytics as well as its chatbot direction track perfectly with where the RPA market is heading.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 12

- **NICE launches a separate RPA business to support growth.** Starting with the 2010 acquisition of Igloo, NICE added queue management and scale features in 2014. In 2016, it separated RPA from the contact center workflow automation business to create focus. The NICE RPA solution spans attended and unattended digital workloads, but most customers to date have valued its customer service use and contact center depth. It is just rolling out major unattended clients in areas like finance and accounting and will look to expand. The solution has a strong a central management module, which oversees the queuing of automation tasks and monitors process completion, system livelihood, and alerts on outstanding issues. It meets the strictest security standards, including the ability to run behind a locked screen and a connectivity watcher for robots.

  NICE has a wide portfolio of analytics offerings but needs to expand their connection to the RPA platform. Stronger collaboration for the design studio would allow several people to work on the same files and projects at the same time. Upgrades, browser support, and release management can all improve and will be greater focus as a standalone software unit. The challenge for NICE will be to show success selling to new logos, particularly non-contact-center clients. But as a $1 billion company with a 15-year track record of automation, NICE becomes a safe choice, especially for attended use cases.

- **Kryon Systems brings a newer architecture with analytics smarts.** Kryon's Leo product launched in 2012. Initially, it had a focus on performance assessment in the attended space but now shows a 70% attended and 30% unattended pipeline. The platform is one of the newer architectures. Patented image recognition is used for application location, e.g., support for Citrix sessions and for desktop recording. Leo builds from a modest 50-logo customer base but has a global footprint. The design studio allows advanced drag-and-drop and configuration but lets developers drop to standard scripting and programming languages for complex tasks. Support for both business analysts and programmers, a quick time to delivery, strong professional services, and a straightforward solution are the hallmarks of this promising solution.

- **EdgeVerve Systems brings a combined services and product approach.** EdgeVerve is a wholly owned subsidiary of tech giant Infosys. In January 2013, EdgeVerve launched its AssistEdge robotic automation tool and now has 80 customers, mostly in banking, interactive commerce, distributive trade, credit servicing, and customer service. AssistEdge takes a broader services approach compared with the rest of the field. The product is flanked by well-defined frameworks for an automation center of excellence, RPA governance, and process discovery. Over the past 12 months, like several in the field, product enhancement has accelerated as the RPA market has heated up. The design studio is now drag-and-drop with assorted menus and tools and a recently released "record and play" capability.

  Stronger support for nonprogrammers and third-party application integration is needed. As expected with an Infosys company, a strong implementation team accelerates projects and lowers deployment costs. Over time, look for AssistEdge to integrate with the Infosys Mana AI platform. AssistEdge is best suited for companies that need services and products to drive successful RPA programs.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 13

- **Redwood Software draws from its ERP professional services experience.** Plugging inefficiencies in SAP and Oracle enterprise apps has been a full-time and successful effort for Redwood. RPA reduces manual labor in supply chain, logistics, forecasting, eCommerce delivery, and financial posting. Robot deployment times are reduced by a catalog of SAP and Oracle robots. A Redwood robot accepts external variables from the enterprise resource planning (ERP) system to execute its routines. This results in a smaller set of centrally run robots that run without concern for a physical desktop. Control room and governance features include real-time views of robot progression and audit forms that provide a snapshot of what the robot has executed with data sources and steps.

  In terms of philosophy, Redwood is more API-oriented (data integration) and less UI-oriented (desktop integration) than other vendors in the field. As such, desktop integration, VDI support, desktop analytics, and other core RPA features are only average. Greater ease in building processes by nontechnical staff is required. More "best practice process design" for the robots in Redwood's catalog would further emphasize its finance and accounting (F&A) domain strength. It is worth a good look for any serious F&A operation looking to robotize tasks.

Contenders

- **Kofax accelerates RPA to complement a broader platform offering.** Kofax, which was acquired by Lexmark in 2015, acquired Kapow in 2013 for its data integration smarts but soon found the real jewels: a robotic engine that drives web APIs for use cases that must gather and process data from internal and external sites. A small agent on the desktop communicates with robots on a central server — a different architecture for RPA vendors in that no robot needs to be virtualized or installed on the desktop. The benefit of this is that robots are in one virtual machine that is centrally managed, and there is no need to update individual robots or to push them out to individual machines.

  Kofax Kapow 10 is a release to catch up to the fast-moving field. It added desktop UI support — a mainstay of RPA — as well as native terminal emulation, but it still needs desktop recording and stronger control tower features. A simpler design studio interface, with a shorter learning curve for nontechnical users, would also be a plus. Expertise in F&A, particularly SAP from the ReadSoft acquisition, and linkage to other portfolio elements like capture, process intelligence, BPM, and dynamic case management will lead to its RPA success. Kofax Kapow is a good fit for use cases requiring web interface support, particularly large-scale data pooling applications.

- **Contextor is an integrated development environment that targets agility.** The Contextor solution is deployed in the back or front office, including point-of-sale and branch-office use cases, but "attended" operations is the strongest fit. The robot design is based on a simple view of the human's desktop. Straightforward configuration of robot steps begins the design process — but the designer is often dropped into Java scripting to complete a macro. The approach adapts well to complex applications that may require Java support, NodeJS plug-ins, or FTP libraries. The Galaxy control tower presents a strong unified view of an implementation. Contextor is lighter than the field in analytics, end-to-end process capability, and desktop features like remote recording

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 14

and capture. Improved reporting and more complete work distribution such as scheduling would enhance the control tower capability. It is most suitable for advanced enterprises or integration partners leveraging the flexibility to add value.

› **Softomotive is for those that want to start small and get fast ROI.** Softomotive entered the automation market in 2005 with a standalone product (WinAutomation) that is now on 6,000 individual desktops. A new enterprise edition, ProcessRobot, launched in the summer of 2016. It provides distributed enterprise features and also a clean and smooth upgrade path from the existing standalone desktop version. Softomotive's business is balanced geographically between the US and Europe and is 80% direct, but it is behind in service partners relative to other vendors.

ProcessRobot supports two robot deployment options: 1) a "sidebot" run in attended operation and 2) a "solobot" for unattended work run from a server. The design studio is easy to grasp. Dragging actions for common loops and logic controls, configuration screens, and tabs that create robot actions cover many robot requirements. Scripting or programming languages are well hidden. Limited integration with external tools, version control, enhanced SAP and Oracle connections, better audit trails, and a web-based control room would improve the product. The large desktop customer base and partnership development should bode well for expansion. WinAutomation is a good choice for companies that want to start small, get an immediate ROI, and scale to ProcessRobot. ProcessRobot also provides a good price point compared to the rest of the field.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 15

Engage With An Analyst

Gain greater confidence in your decisions by working with Forrester thought leaders to apply our research to your specific business and technology initiatives.

Analyst Inquiry

To help you put research into practice, connect with an analyst to discuss your questions in a 30-minute phone session — or opt for a response via email.

Learn more.

Analyst Advisory

Translate research into action by working with an analyst on a specific engagement in the form of custom strategy sessions, workshops, or speeches.

Learn more.

Webinar

Join our online sessions on the latest research affecting your business. Each call includes analyst Q&A and slides and is available on-demand.

Learn more.

Forrester's research apps for iPhone® and iPad®
Stay ahead of your competition no matter where you are.

Supplemental Material

Online Resource

The online version of Figure 2 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution. We evaluated the vendors participating in this Forrester Wave, in part, using materials that they provided to us by November 21, 2016.

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 16

- **Product demos.** We asked vendors to conduct demonstrations of their products' functionality. We used findings from these product demos to validate details of each vendor's product capabilities.
- **Customer reference surveys.** To validate product and vendor qualifications, Forrester also conducted online surveys with five of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave evaluation — and then score the vendors based on a clearly defined scale. We intend these default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. For more information on the methodology that every Forrester Wave follows, go to http://www.forrester.com/marketing/policies/forrester-wave-methodology.html.

Integrity Policy

We conduct all our research, including Forrester Wave evaluations, in accordance with our Integrity Policy. For more information, go to http://www.forrester.com/marketing/policies/integrity-policy.html.

Endnotes

[1] Forrester estimated the number of digital workers — meaning robots that will be deployed over the next five years. Please see the Forrester report "The RPA Market Will Reach $2.9 Billion By 2021."

[2] Forrester estimated the number of digital workers — meaning robots that will be deployed over the next five years. As part of the market forecast, we estimate when AI will be incorporated into RPA platforms or be combined in a productive manner. AI will start to have a material effect in 2018 and start to scale in 2020. Please see the Forrester report "The RPA Market Will Reach $2.9 Billion By 2021."

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 17

[3] We reviewed 12 RPA product design studios and received input from more than 50 references. We specifically asked each reference to rate the level of skills required for robot designing. More than two-thirds of the responses cited programmer skills as being an essential background to build robotic processes. Most of the platforms had graphical support and configuration controls for RPA macro execution that minimized coding. Yet all had dependence on scripting tools or programming environments like .NET, VBScript, Java, HTML rendering tools, or JavaScript.

[4] Cognizant purchased Trizetto, a significant health claims platform provider, in 2016.

[5] Genfour services help define and enable a digital workforce. It provides a managed service solution where it implements, maintains, and operates processes with options for the enterprise to run "robots" on its infrastructure.

[6] Arago was founded in 1995, and today builds AI tools focused on the B2B sector to automate enterprise IT operations. Source: "Who We Are," Arago (https://www.arago.co/who-we-are).

Ayehu provides IT process automation and orchestration solutions for IT and security professionals to enable containment, eradication, and recovery from cybersecurity breaches and greater control over IT infrastructure. The company supports thousands of IT processes across the globe and has offices in New York, California, and Israel. Source: "About Ayehu," Ayehu (http://ayehu.com/company/).

© 2017 Forrester Research, Inc. Unauthorized copying or distributing is a violation of copyright law.
Citations@forrester.com or +1 866-367-7378

Whatfix Inc. Exhibit 1031 Page 18

FORRESTER®
CHALLENGE THINKING. LEAD CHANGE.

We work with business and technology leaders to develop customer-obsessed strategies that drive growth.

PRODUCTS AND SERVICES

- Core research and tools
- Data and analytics
- Peer collaboration
- Analyst engagement
- Consulting
- Events

Forrester's research and insights are tailored to your role and critical business initiatives.

ROLES WE SERVE

Marketing & Strategy Professionals

CMO
B2B Marketing
B2C Marketing
Customer Experience
Customer Insights
eBusiness & Channel Strategy

Technology Management Professionals

CIO
Application Development & Delivery
› Enterprise Architecture
Infrastructure & Operations
Security & Risk
Sourcing & Vendor Management

Technology Industry Professionals

Analyst Relations

CLIENT SUPPORT

For information on hard-copy or electronic reprints, please contact Client Support at +1 866-367-7378, +1 617-613-5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.

Forrester Research (Nasdaq: FORR) is one of the most influential research and advisory firms in the world. We work with business and technology leaders to develop customer-obsessed strategies that drive growth. Through proprietary research, data, custom consulting, exclusive executive peer groups, and events, the Forrester experience is about a singular and powerful purpose: to challenge the thinking of our clients to help them lead change in their organizations. For more information, visit forrester.com.

131182