Everest Group®
RESEARCH

Robotic Process Automation (RPA) – Technology Vendor Profile Compendium 2018

Service Optimization Technologies (SOT)
Market Report – May 2018: Complimentary Abstract / Table of Contents

EGR-2018-38-CA-2630

Our research offerings for global services

- **Market Vista™**
  Global services tracking across functions, sourcing models, locations, and service providers – industry tracking reports also available

- Application Services
- BPS | Banking & Financial Services
- BPS | Healthcare & Life Sciences
- BPS | Insurance
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- Customer Experience Management Services
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- ITS | Banking & Financial Services
- ITS | Healthcare & Life Sciences
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- Service Optimization Technologies

Membership information

- This report is included in the following research program(s)
  - **Service Optimization Technologies (SOT)**
- **If you want to learn whether your organization has a membership agreement or request information on pricing and membership options, please contact us at info@everestgrp.com, unitedkingdom@everestgrp.com, or india@everestgrp.com**

More about membership

In addition to a suite of published research, a membership may include

- Price book
- Pinnacle Accelerators
- Data cuts
- Analyst access
- Virtual Roundtables
- Workshops

Custom research capabilities

- Benchmarking | Pricing, delivery model, skill portfolio
- Peer analysis | Scope, sourcing models, locations
- Locations | Cost, skills, sustainability, portfolio – plus a tracking tool
- Tracking services | Service providers, locations, risk
- Other | Market intelligence, service provider capabilities, technologies, contract assessment

Table of contents

Background of the research

Background of the research

Robotic Process Automation (RPA) has the potential to offer key benefits – improved speed & accuracy, enhanced customer experience, and reduced cost, among others. Moreover, this value is realized fairly quickly, as deployments are rapid and low risk due to the fact that integration is typically non-invasive and easily remediable. As a consequence, many enterprises and global service providers are investing in RPA. However, RPA is a burgeoning market with technologies that are relatively new to many potential buyers in terms of solution features, deployment models, supporting frameworks, and commercial aspects. The technologies are also evolving, with an expanding feature set and increasing richness of functionality.

The objective of this compendium report is to provide key stakeholders a snapshot of the RPA offerings and capabilities of 18 leading RPA technology vendors. The report allows technology vendors to compare their offerings, capabilities, and areas of strength and improvement with other vendors in the marketplace. It also helps existing and potential buyers of RPA software to assess the technology vendors on the capabilities that they desire.

Each technology vendor profile covers the following details of vendors vis-à-vis their RPA offerings and capabilities:

- Company overview
- Recent deals and announcements
- Market adoption and client portfolio mix
- Product features and functionalities
- Delivery capabilities
- Partnerships
- Measure of capabilities across PEAK Matrix™ dimensions
- Key strengths and areas of improvement for technology vendors

Principles of Service Delivery Automation (SDA)

1

Automation – at its most basic level – must utilize technology to replace a series of human actions. Correspondingly, not all technologies provide automation, and replacing a single human action with technology (e.g., a mathematical equation in a spreadsheet) is not automation. At the same time, automation can be done by degrees, but some steps will still require human interaction.

2

Much automation is already embedded in software systems (e.g., linking client information across marketing and supply chain systems); however, because it is part of the normal feature-functionality of a system, it is generally not considered automation, but simply a more powerful system(s).

3

Automation for IT is very different than for business processes:

- In IT, automating is generally addressed by improving the core functionality and is handled by the IT system management tools. Further, these activities are owned by central IT, which is naturally incented to create more efficient IT operations
- In business processes, system limitations are generally much more difficult to overcome, and they stretch across many systems in the organization. As such, the business case for significant system change is generally unappealing. Finally, the benefits of improved processes accrue to the business and are hard to quantify with an ROI that can motivate central IT groups to invest their resources

4

Service delivery automation can be accomplished by combining multiple technologies. For example, traditional Business Process Management (BPM) technologies can be further enhanced by combining them with newer User Interface (UI) / robotic process tools. Cognitive computing, although in its infancy, represents the next horizon, as automation not only replicates human behavioral characteristics while executing judgment-intensive IT and business processes, but also creates the potential to spawn new businesses for IP-owners and enterprises.

Everest Group's Service Delivery Automation (SDA) spectrum

SDA includes a spectrum of automation solutions for delivering global services

High — Low

	Ability to handle input data type	Processing approach	Ability to learn	Context awareness	Approach
Robotic Desktop Automation (RDA)	Structured only	Deterministic	No	Minimal	Human triggers
Robotic Process Automation (RPA)	Structured and semi-structured	Deterministic	No	Minimal	Orchestrated process automation
Autonomics	Structured and semi-structured	Deterministic	No	Yes, but limited to its computing environment	Distributed computing
Narrow Artificial Intelligence	All types of data including unstructured	Probabilistic	Yes, but limited to a particular area	Yes, but limited to a particular domain	Cognitive computing (machine learning, deep learning, and NLP)
General Artificial Intelligence	All types of data including unstructured	Probabilistic	Yes, across multiple areas	Yes, across multiple domains and similar to human brain	Not available

Maturity — Future tech

Human involvement — Intelligence

Note: In this report, we have referred to rules-based/deterministic SDA solutions (i.e., RDA, RPA, and autonomics) collectively as RPA

This report is based on three key sources of proprietary information

Proprietary database of 18 RPA technology vendors
The database tracks the following elements for each vendor:
- Automation development and integration features
- Automation management and resilience features
- IT governance and security features
- Partnerships with service providers and other technology vendors
- Support in terms of product training, maintenance, consulting, and other support services
- Availability and adoption of commercial model(s)
- Portfolio coverage in terms of industry, geography, process areas, and buyer size
- Vendor performance in terms of revenue and clients

Demonstrations and interactions with technology vendors and other industry stakeholders
- Detailed demos and interviews with RPA technology vendors for a comprehensive view of the products
- Interviews with technology vendors' reference clients
- Executive-level discussions with technology vendors as well as service providers that cover:
  - Current state of the market
  - Opportunities and challenges
  - Expected direction of movement in the industry
  - Technology vendor / service provider vision and roadmap
- Executive-level discussions with industry enablers / specialist system integrators to get the buyer perspective, and also to reaffirm the findings from other sources
- On-site as well as conference meetings with enterprise RPA buyers to understand:
  - Vision and objectives
  - Buying criteria
  - Apprehensions and challenges
  - Outcomes achieved
  - Future direction

Proprietary database of RPA and AI capabilities of 18 leading BPS providers complements the research
The database tracks the following capability elements for each service provider:
- Clients with automation deployments, scale and scope of deployments, cost savings, and case studies
- Automation client portfolio across buyer sizes, geographies, industries, and BPS segments
- RPA vision and strategy, top automation solutions, their value propositions, and RPA and AI features
- Technology partners and collaborations with academic institutes
- Investments specific to RPA and AI as well as engagement & commercial models

Technology vendors covered in the analysis

ANTWORKS Reimagine • Rethink • Recreate
AUTOMATION ANYWHERE
AutomationEdge
blueprism
contextor
DATAMATICS Data to Intelligence
edgeverve
Jidoka
KOFAX
KRYON SYSTEMS
NICE
OpenConnect oc.com
PEGA
REDWOOD
softomotive We talk automation
thoughtonomy
UiPath
WorkFusion

The study provides detailed view of vendors' RPA offerings & capabilities as well as key strengths & areas of improvement | Snapshots to illustrate the depth of report (page 1 of 3)

Assessment of capability and market impact

Measure of capability: ● High ◔ Low

	Market impact				Vision & capability					
	Market success	Portfolio mix	Value delivered	Overall	Vision & strategy	Development & integration	Deployment & maintenance	Product training & support	Commercial model	Overall
Technology vendor 1	◑	◕	◑	◑	◕	◕	◕	◕	◕	◕
Technology vendor 2	◔	◔	◔	◑	◔	◑	◔	◔	◕	◔
Technology vendor 3	◑	◑	●	◕	◕	◑	◑	◕	◕	◕
Technology vendor 4	◔	◔	◑	◕	◔	◔	◔	◔	◕	◑
Technology vendor 5	◔	◕	◔	◕	◕	◔	◑	◕	◕	◑
Technology vendor 6	◔	◔	◔	◕	◔	◑	◑	◔	◕	◑
Technology vendor 7	◔	◕	◔	◕	◕	◕	◔	◔	◕	◑
Technology vendor 8	◕	◕	◕	◕	◕	◑	◕	◕	◕	◕

Technology vendor's overview

Company overview

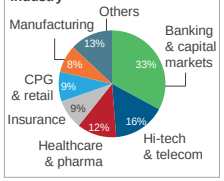
Vendor 1 is a U.S.-based RPA software vendor. Established in xxx, the company provides solutions to automate business processes by combining RPA and smart automation / cognitive technologies (leveraging machine learning natural language processing capabilities), enabling companies to build intelligent digital workforces. The vendor benefits from a large partner base including leading system integrators and global service providers.

Key technology leaders: xxx
Headquarters: xxx
Key clients include: xxx
Website: xxx

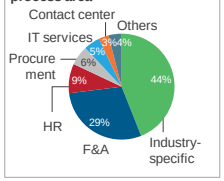
Non-exhaustive list of recent deals and announcements

- **Month Year:** xxx
- **Month Year:** xxx
- **Month Year:** xxx
- **Month Year:** xxx
- **Month Year:** xxx

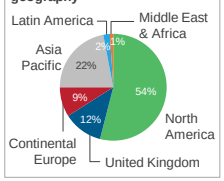
Split of RPA revenue by buyer industry



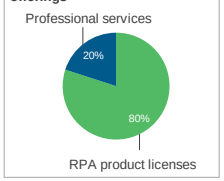
Split of RPA revenue by process area



Split of RPA revenue by buyer geography



Split of RPA revenue by offerings



Product features and functionalities

Available | In the roadmap | Available via partner | Not available

Capability & offerings

Hosting options	Desktop/laptop	Server / on-premise	Private cloud	Public cloud	Supports multi-tenant deployment
Development and integration	Visual drag and drop	Built-in process recorder	Edit/enhance the recorded steps	Object capture based on element-id recognition	Object capture based on image recognition
	Built-in process workflow tool	Develop/configure in a layered manner	Develop Robotic Desktop Automation (RDA)	Debugging tools	Remote configuration
	Library of pre-built automations	Create and share reusable components	Support for open standards	REST/SOAP web services / APIs	Pre-built connectors with leading applications
	On-line portal for pre-built objects	Human-in-the-loop process development			
Deployment and maintenance	Central control and monitoring	Remote maintenance and support	Scheduling and queuing	Web-based interface for control room	
	Dynamic load balancing based on priorities	Auto-scaling of bots	Service Level Agreement (SLA) -based automation	Advanced workflow / BPM	
	Robot performance analytics	SLA monitoring/reporting	Process mining	Process-level business intelligence	
	Execute automations in the background	Execute multiple automations in parallel on a virtual machine	Withstand single site failure		

Everest Group's remarks on technology vendors

Measure of capability: ● High ◔ Low

Market impact				Vision & capability					
Market success	Portfolio mix	Value delivered	Overall	Vision & strategy	Development & integration	Deployment & maintenance	Product training & support	Commercial model	Overall
◕	◕	●	◕	◕	◕	●	●	◕	◕

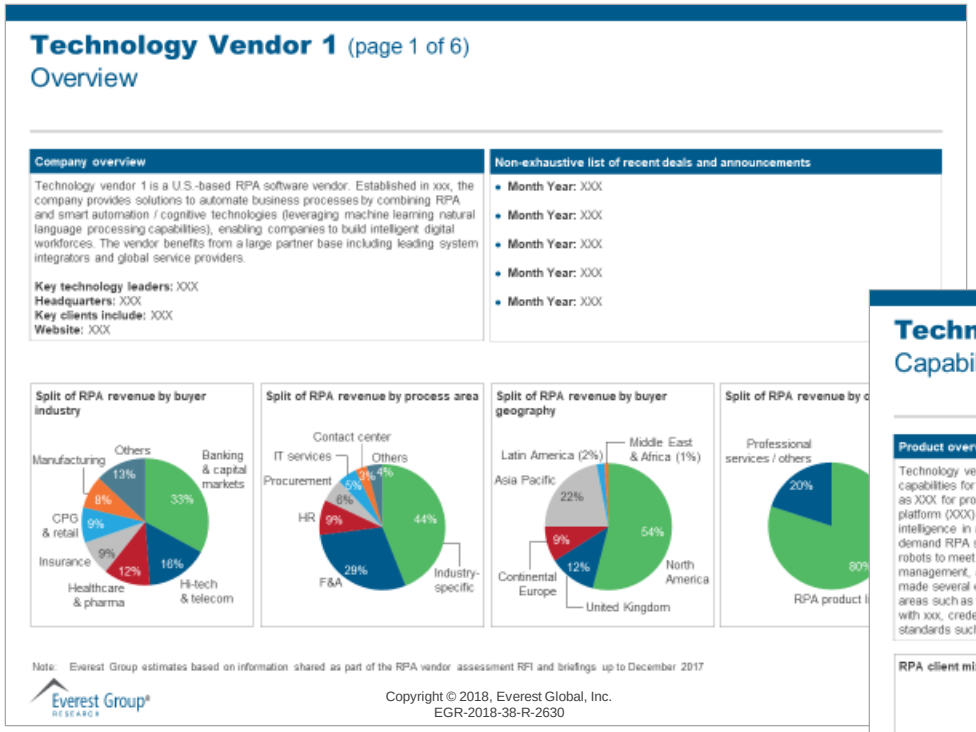
Strengths

- Vendor 1 has a sturdy vision towards building an integrated digital workforce platform and has expanded RPA, cognitive, and BPM capabilities of its automation platform through in-house investment and partnerships. It also has a vision towards developing a robust learning ecosystem for RPA with eLearning courses, training programs, and university outreach
- It added xxx new enterprise clients in 2017 resulting in about XX% year-on-year growth in its number of clients. Our estimates indicate that it has the highest share of the RPA software market as well as the largest portfolio of enterprise clients. It also has a balanced client portfolio with significant presence across key geographies, industries, process areas, and buyer sizes
- It offers reusability and modularity features by allowing clients to create and share libraries of objects (XXX) to interact with underlying applications for a modular/layered robot design. Clients rate it highly for its scalability. It has also partnered with system integrators such as XXX for developing libraries of pre-built automations

Areas of improvement

- While vendor 1 has very strong unattended RPA capabilities, and lends itself very well for automating back-office processes, there is scope to further enhance its attended RPA/RDA capabilities with features such as next-best-action user guidance for XXX XXX
- Vendor 1 is yet to demonstrate considerable market success of XXX. It can focus on building function- / vertical-specific customized templates for XXX to make it more attractive for industries such as CPG and BFSI, and functions such as SCM, where use cases with unstructured data are highly prevalent. Clients also expect the vendor to improve its XXX capabilities (XXX). Its recent addition of NLP capabilities to its XXX is a step in this direction
- Adding out-of-the-box advanced workflow/orchestrator to integrate manual steps and orchestrate end-to-end processes would increase the value proposition for scaled-up use cases, and one-stop automation solutions

Snapshots to illustrate the depth of report (page 2 of 3)



Technology Vendor 1 (page 1 of 6)
Overview

Company overview

Technology vendor 1 is a U.S.-based RPA software vendor. Established in xxx, the company provides solutions to automate business processes by combining RPA and smart automation / cognitive technologies (leveraging machine learning natural language processing capabilities), enabling companies to build intelligent digital workforces. The vendor benefits from a large partner base including leading system integrators and global service providers.

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Non-exhaustive list of recent deals and announcements

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- **Month Year:** XXX
- **Month Year:** XXX
- **Month Year:** XXX

Split of RPA revenue by buyer industry

Split of RPA revenue by process area

Split of RPA revenue by buyer geography

Split of RPA revenue by c

Note: Everest Group estimates based on information shared as part of the RPA vendor assessment RFI and briefings up to December 2017

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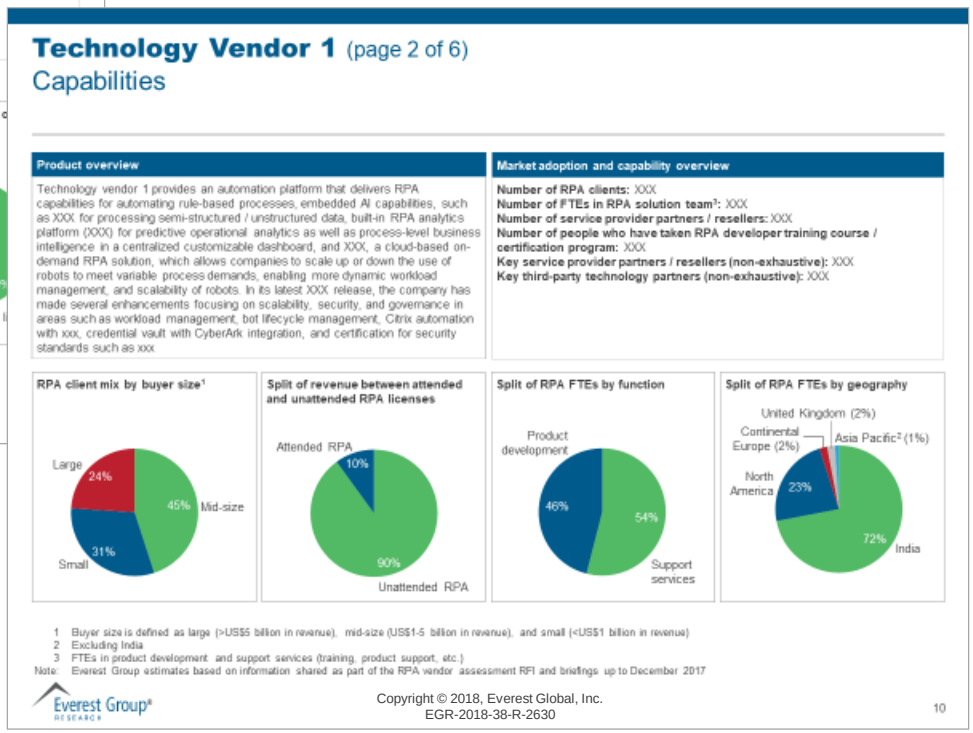

Technology Vendor 1 (page 2 of 6)
Capabilities

Product overview

Technology vendor 1 provides an automation platform that delivers RPA capabilities for automating rule-based processes, embedded AI capabilities, such as XXX for processing semi-structured / unstructured data, built-in RPA analytics platform (XXX) for predictive operational analytics as well as process-level business intelligence in a centralized customizable dashboard, and XXX, a cloud-based on-demand RPA solution, which allows companies to scale up or down the use of robots to meet variable process demands, enabling more dynamic workload management, and scalability of robots. In its latest XXX release, the company has made several enhancements focusing on scalability, security, and governance in areas such as workload management, bot lifecycle management, Citrix automation with xxx, credential vault with CyberArk integration, and certification for security standards such as xxx

Market adoption and capability overview

Number of RPA clients: XXX
Number of FTEs in RPA solution team[3]: XXX
Number of service provider partners / resellers: XXX
Number of people who have taken RPA developer training course / certification program: XXX
Key service provider partners / resellers (non-exhaustive): XXX
Key third-party technology partners (non-exhaustive): XXX

RPA client mix by buyer size[1]

Split of revenue between attended and unattended RPA licenses

Split of RPA FTEs by function

Split of RPA FTEs by geography

1 Buyer size is defined as large (>US$5 billion in revenue), mid-size (US$1-5 billion in revenue), and small (<US$1 billion in revenue)
2 Excluding India
3 FTEs in product development and support services (training, product support, etc.)
Note: Everest Group estimates based on information shared as part of the RPA vendor assessment RFI and briefings up to December 2017

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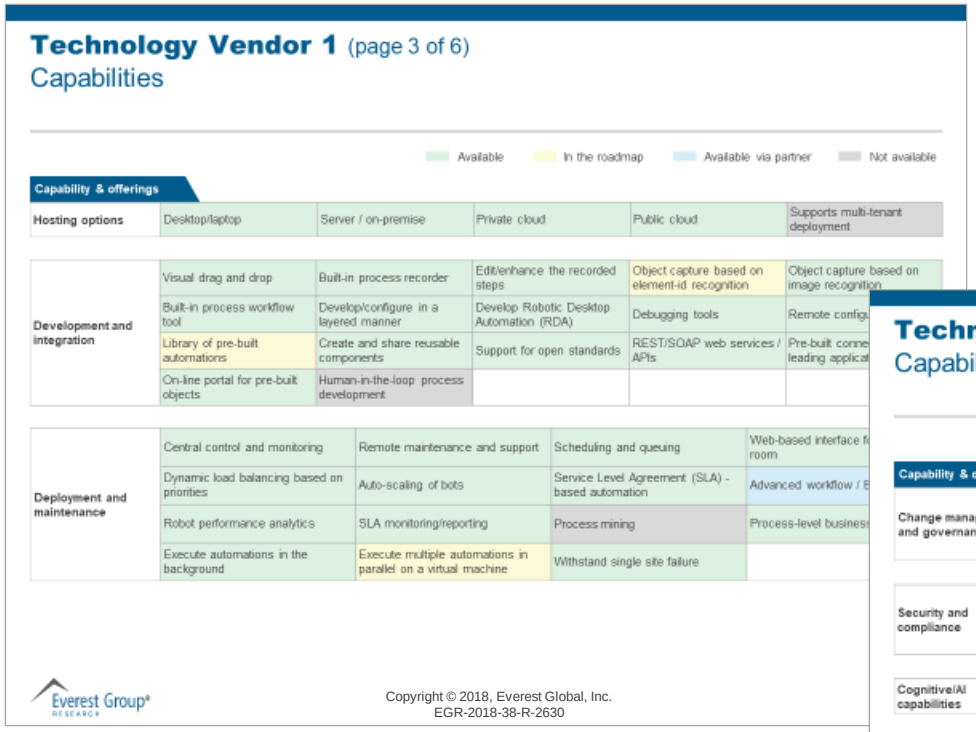
Snapshots to illustrate the depth of report (page 3 of 3)



Technology Vendor 1 (page 3 of 6)
Capabilities

Available | In the roadmap | Available via partner | Not available

Capability & offerings					
Hosting options	Desktop/laptop	Server / on-premise	Private cloud	Public cloud	Supports multi-tenant deployment
Development and integration	Visual drag and drop	Built-in process recorder	Edit/enhance the recorded steps	Object capture based on element-id recognition	Object capture based on image recognition
	Built-in process workflow tool	Develop/configure in a layered manner	Develop Robotic Desktop Automation (RDA)	Debugging tools	Remote config
	Library of pre-built automations	Create and share reusable components	Support for open standards	REST/SOAP web services / APIs	Pre-built conne... leading applicat...
	On-line portal for pre-built objects	Human-in-the-loop process development			
Deployment and maintenance	Central control and monitoring	Remote maintenance and support	Scheduling and queuing	Web-based interface f... room	
	Dynamic load balancing based on priorities	Auto-scaling of bots	Service Level Agreement (SLA) - based automation	Advanced workflow / E...	
	Robot performance analytics	SLA monitoring/reporting	Process mining	Process-level busines...	
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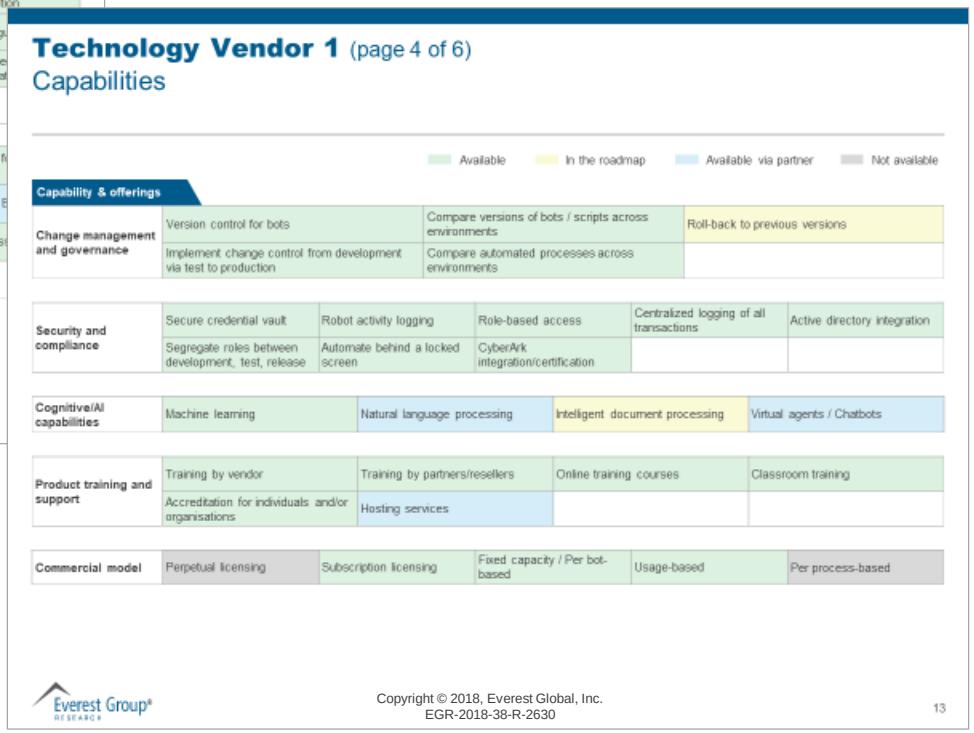

Technology Vendor 1 (page 4 of 6)
Capabilities

Available | In the roadmap | Available via partner | Not available

Capability & offerings					
Change management and governance	Version control for bots	Compare versions of bots / scripts across environments	Roll-back to previous versions		
	Implement change control from development via test to production	Compare automated processes across environments			
Security and compliance	Secure credential vault	Robot activity logging	Role-based access	Centralized logging of all transactions	Active directory integration
	Segregate roles between development, test, release	Automate behind a locked screen	CyberArk integration/certification		
Cognitive/AI capabilities	Machine learning	Natural language processing	Intelligent document processing	Virtual agents / Chatbots	
Product training and support	Training by vendor	Training by partners/resellers	Online training courses	Classroom training	
	Accreditation for individuals and/or organisations	Hosting services			
Commercial model	Perpetual licensing	Subscription licensing	Fixed capacity / Per bot-based	Usage-based	Per process-based

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Research calendar – Service Optimization Technologies (SOT)

Published | Planned | Current release

Flagship SOT reports	Release date
Enterprise RPA adoption – Pinnacle Model™ Assessment 2018	March 2018
Robotic Process Automation (RPA) – Technology Vendor Landscape with Products PEAK Matrix™ Assessment 2018	April 2018
Robotic Process Automation (RPA) – Technology Vendor Profile Compendium 2018	**May 2018**
Robotic Process Automation (RPA) – Annual Report 2018	Q2 2018
Chatbots / Virtual Agents – Technology Vendor Landscape with PEAK Matrix™ Assessment 2018	Q3 2018
SDA in Healthcare BPS – Service Provider Landscape with PEAK Matrix™ Assessment 2018	Q3 2018
Intelligent Document Processing – Technology Vendor Landscape with PEAK Matrix™ Assessment 2018	Q4 2018

Thematic SOT reports	
Viewpoint – Creating business value through next-generation smart digital workforce	February 2018
Report – Role of Artificial Intelligence (AI) and Cognitive Solutions in Delivering Customer Experience of the Future	March 2018
Viewpoint – Defining Enterprise RPA	May 2018
Report – Buyer feedback analysis for RPA	Q2 2018
Viewpoint – Driving Business Outcome through Enhanced Employee Experience	Q2 2018
Viewpoint – Application of automation for GDPR compliance	Q2 2018
Toolkit – RPA in GICs Toolkit	Q3 2018
Report – Fulfilling the promise of RPA in F&A - A reality check	Q3 2018
Viewpoint – Citrix Automation - Challenges and Opportunities	Q4 2018
Viewpoint – Robot Security in RPA Implementations	Q4 2018

Note: For a list of all of our SOT reports, please visit the SOT on our reports portal

Additional SOT research references

The following documents are recommended for additional insight on the topic covered in this report. The recommended documents either provide additional details on the topic or complementary content that may be of interest

1. **RPA – Technology Vendor Landscape with Products PEAK Matrix™ Assessment 2018** (EGR-2018-38-R-2595); 2018. Robotic Process Automation (RPA) is one of the key enablers of digital transformation for enterprises and global service providers. This report uses Everest Group's proprietary PEAK Matrix™ to assess and evaluate RPA capabilities of technology vendors across two key dimensions, market impact and vision & capability. It also includes market share analysis of technology vendors, insights into advances in RPA technologies and Everest Group's remarks on technology vendors highlighting their key strengths and areas of improvement, with specific focus on RPA

2. **Enterprise RPA Adoption | Pinnacle Model™ Assessment** (EGR-2018-38-R-2586); 2018. The service revolution is well underway, and enterprises across nearly all verticals are accelerating their Robotic Process Automation (RPA) efforts and related outcomes. While a majority of enterprises are still in early stages of RPA adoption, some enterprises have performed better than others in their RPA journey by developing a combination of differentiated capabilities along with deriving superior outcomes. Everest Group recognizes such RPA Pinnacle Enterprises™ by comparing enterprise performance on its proprietary Pinnacle Model™ methodology

3. **RPA Implementation in GICs – Learnings and Best Practices** (EGR-2017-2-R-2514); 2017. This report captures key learnings and experiences of best-in-class GICs that have undertaken RPA implementation. It also includes case studies on the RPA journey of leading GICs from a variety of industry verticals and stages of RPA adoption, with a focus on challenges faced and mitigation approaches employed

4. **The Business Case for RPA and Chatbots in Contact Centers** (EGR-2017-1-R-2462); 2017. This report assesses the financial impact of the adoption of SDA solutions such as RDA, RPA, and chatbots on the total cost of contact center operations and the typical SDA adoption journey for enterprises. It also provides few case studies of enterprises, who have currently adopted the SDA solutions to improve customer experience along with key learnings

For more information on this and other research published by Everest Group, please contact us:

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About Everest Group

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