

Everest Group PEAK Matrix™ for solutions: IT Infrastructure Services Automation (Focus on IT service providers)

Focus on IBM April 2017



Introduction and scope



Everest Group recently released its report titled "<u>IT Infrastructure Services Automation – Market Update and PEAK Matrix™ Assessment for Solutions (Focus on IT service providers)</u>".

As a part of this report, Everest Group analyzed 15 leading service providers on the Everest Group Performance | Experience | Ability | Knowledge (PEAK) Matrix specific to IT infrastructure services automation into Leaders, Major Contenders, and Aspirants. The PEAK Matrix is a composite framework that provides an objective, data-driven, and comparative assessment of IT infrastructure services automation providers based on their absolute market success and delivery capability.

Based on the analysis, **IBM emerged as a Leader**. This document focuses on IBM's IT infrastructure services automation experience and capabilities. It includes:

- IBM's position on the IT infrastructure services automation PEAK Matrix
- Detailed profile of IBM's IT infrastructure services automation portfolio and capabilities

Buyers can use the PEAK Matrix to identify and evaluate different service providers. It helps them understand the service providers' relative strengths and gaps. However, it is also important to note that while the PEAK Matrix is a useful starting point, the results from the assessment may not be directly prescriptive for each buyer. Buyers will have to consider their unique situation and requirements, and match them against service provider capability for an ideal fit.



Background of the research



Background of the research

- In today's digital age where "applications are the business," establishing an agile, resilient, and cost-effective IT infrastructure has become critical for enterprises, as they look to build and push new products to the market faster than competition. The need for a "business-aligned" IT infrastructure has translated into mainstream adoption of next-generation IT infrastructure concepts such as cloud, converged infrastructure, and operational analytics
- However, most enterprises continue to struggle to reap benefits that are commensurate with the extent of their investments. One of the key reasons that enterprises fail to realize the desired benefits is the lack of "coherent and business context-centered" IT infrastructure services automation strategy. In order to obtain "true business benefits," enterprises need to adopt an automation strategy that:
 - Offers high agility and resilience to support dynamic business requirements (i.e., self-learning / conscious IT infrastructure)
 - Takes a pragmatic adoption approach, supported by a clear decision framework (where to and where not to adopt)
 - Gives due consideration to existing process maturity levels, rather than driving a "big-T" transformation without proper evaluation of the criticality of underlying applications/businesses
 - Has a robust product strategy at its heart, ensuring that there is minimal vendor lock-in involved
- In this research, we present the assessment and detailed profiles of 15 IT service providers featured on the PEAK Matrix for IT infrastructure services automation solutions. Each service provider profile gives a comprehensive picture of their IT infrastructure services automation solutions' (i.e., software + associated services) vision, scale & nature of operations, and domain investments
- The assessment is based on Everest Group's annual Request for Information (RFI) process conducted in Q4 2016, interactions with leading IT infrastructure services providers, and analysis of the broader IT infrastructure services automation market

Scope of this report

- Services: IT infrastructure services automation
- Geography: Global
- Service providers: 15 leading IT infrastructure service providers

This report includes the profiles of the following 15 service providers on Everest Group's PEAK Matrix for Solutions: IT infrastructure services automation:

- Leaders: IBM, HCL Technologies, Wipro, and TCS
- Major Contenders: CGI, Cognizant, GAVS Technologies, Infosys, Microland, NTT DATA, Tech Mahindra, and Zensar
- Aspirants: Hexaware, Mphasis, and VirtusaPolaris



First principles of Service Delivery Automation (SDA)



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

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 follow a process that stretches 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
- Cognitive computing is a breakthrough in automation. Traditional automation has used GUI-based workflows and scripts to automate routine human IT tasks. This has further progressed to self-learning systems or autonomics with particular relevance in the infrastructure services space. Cognitive computing, although at its infancy, represents the next horizon, as automation not only replicates human behavioral characteristics while executing judgement-intensive IT and business processes, but also creates the potential to spawn new businesses for IP-owners and enterprises.



This report focuses on IT infrastructure services automation solutions and offers insights into prominent IT service providers operating in this space (page 1 of 2)



Services delivery automation

NOT EXHAUSTIVE

IT infrastructure services

- Automation within IT infrastructure management (servers, storage, network, OS/virtualization, database, middleware, End User Compute (EUC), and service desk)
- Examples of tasks automated:
 - Hardware or service provisioning
 - Capacity management
 - Helpdesk/support operations
 - Patch management
 - End-user automation
 - Performance monitoring, incident management, self-healing, and prevention
- Transformation and modernization using performance data to identify areas for improvement and modernization of IT infrastructure services

Application services

- Automation within Software Development and Life Cycle (SDLC) management
- Examples of tasks automated include:
 - Rapid Application Development (RAD)
 - Code generation
 - Model-Driven Architecture / Development (MDA/MDD)
 - Application release automation and deployment
 - Test automation
- Transformation and modernization using performance data to identify areas for improvement and modernization for application services

Business process services

- Handling high volumes of repetitive administrative tasks, e.g., invoice settlement or benefits application processing
- Seeking and identifying patterns that can indicate unusual situations or activity, e.g., a deadline about to be breached or potential fraudulent activity
- Gaining commercial intelligence, e.g., used in price optimization in the travel and hospitality sector
- Front-office services such as automated voice as well as in-bound document handling

The focus of this report is on the complete set of automation solutions (i.e., software + associated services) offered by IT infrastructure service providers. The software implemented comprises both in-house and third-party (ISV) offerings.



This report focuses on IT infrastructure services automation solutions and offers insights into prominent IT service providers operating in this space (page 2 of 2)



NOT EXHAUSTIVE

Automation within IT infrastructure services delivery

- Automation within IT infrastructure management (servers, storage, network, OS/virtualization, database, middleware, End User Compute (EUC), and service desk)
- Examples of tasks automated: Hardware or service provisioning, capacity management, helpdesk/support operations, patch management, end-user automation, and performance monitoring, incident management, self-healing, and prevention
- Transformation and modernization using performance data to identify areas for improvement and modernization of IT infrastructure services

Third party automation / analytics product providers (illustrative examples)











- Offer IT infrastructure services automation products
 - Sold either directly to clients or through channel partners (e.g. IT service providers)
 - Can also offer managed services in addition to products (e.g. IPsoft)

Service providers (illustrative examples)







TATA CONSULTANCY SERVICES





- Design, implementation, and management services for IT infrastructure services automation
 - Offered within managed services or as stand-alone "automation as a service"
 - Cover third-party products and / or in-house IP

Focus of this report (Assessment of IT service provider capabilities)



IBM is positioned as a Leader on Everest Group's PEAK Matrix for Solutions: IT infrastructure services automation

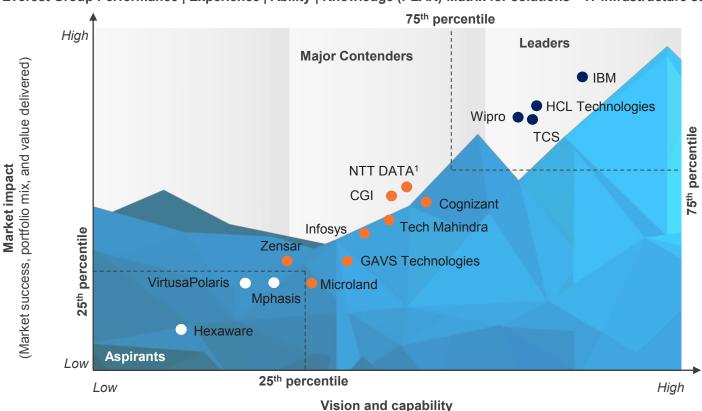


Major Contenders

Leaders

Aspirants

Everest Group Performance | Experience | Ability | Knowledge (PEAK) Matrix for solutions – IT infrastructure services automation



(Vision & strategy, scale, technology capability, investments, integration & implementation, and engagement & commercial model)

1 Represents capabilities of only the erstwhile Dell Services entity Source: Everest Group (2017)



IBM | IT infrastructure services automation profile

IT infrastructure services automation overview



Company vision

IBM sees cognitive as the future of automation and has established a separate cognitive business consulting practice. It uses Watson to enhance problem determination, address non-deterministic use cases, and provide analytical visualization. IBM leverages in-house automation capabilities along with industry standard tools to expand capacity, improve quality, and increase the speed of delivery. IBM believes that the wide breadth of solutions, coupled with significant deployment experience and cognitive automation capabilities, help it differentiate in the market.

Strengths

- Strong suite of automation solutions combined with services legacy makes IBM a leader in this space
- Strong mindshare and continued investments in the cognitive space, with established use cases and POCs leveraging analytics capabilities offered by Watson across multiple client environments

Areas of improvement

- Needs to tone down the "advanced automation" messaging, as the pitch tends to become too futuristic for enterprises, especially for those with immediate cost/productivity improvements as the near- / mid-term goal
- Strong association (primarily) with IPsoft and aggressive push around Watson could potentially drive lock-in concerns among enterprises

Proprietary solutions (representative list)		
Solution	Details	
IBM Cognitive Technology Services Platform	Integrates each of IBM's automation solutions into a single platform with IBM Watson and analytics. It uses Watson for non-deterministic issues and for driving deep analytics into the data associated with running IT.	
Dynamic automation	Responsible for collation, reduction, automated remediation, measurement, and analysis of events and service requests.	
Robotic process automation	Enables automation of manually repetitive tasks using robots. Applicable for both IT and business processes.	
Automated system hygiene	Continuously checks systems against build standards and policy, applies patches, and corrects non-compliant systems back to a compliant state automatically.	

Partnerships (representative list)		
Partner	Details	
IPsoft	IBM has integrated IPsoft's IPcenter platform with its own set of proprietary tools.	
Blue Prism	IBM has leveraged Blue Prism to expand its RPA capabilities.	

Investments (representative list)		
Theme	Details	
IBM Research cognitive unit	IBM Research has a dedicated unit focused on cognitive service automation for infrastructure management. The team is focused on driving constant innovation within advanced analytics and automation.	
Automation CoEs	Focus on automation framework development + industrial scale automation content development (i.e., robots, automata, scripts, etc.)	

Source: Everest Group (2017)



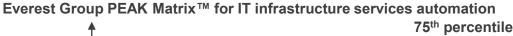


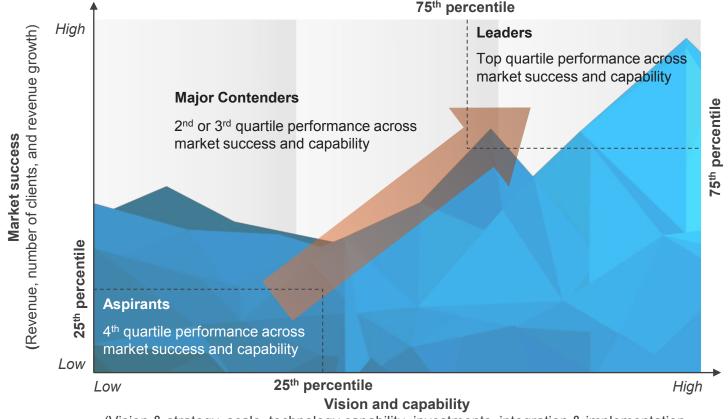
Appendix



Everest Group Performance | Experience | Ability | Knowledge (PEAK) Matrix is a proprietary framework for assessment of a service provider's capability







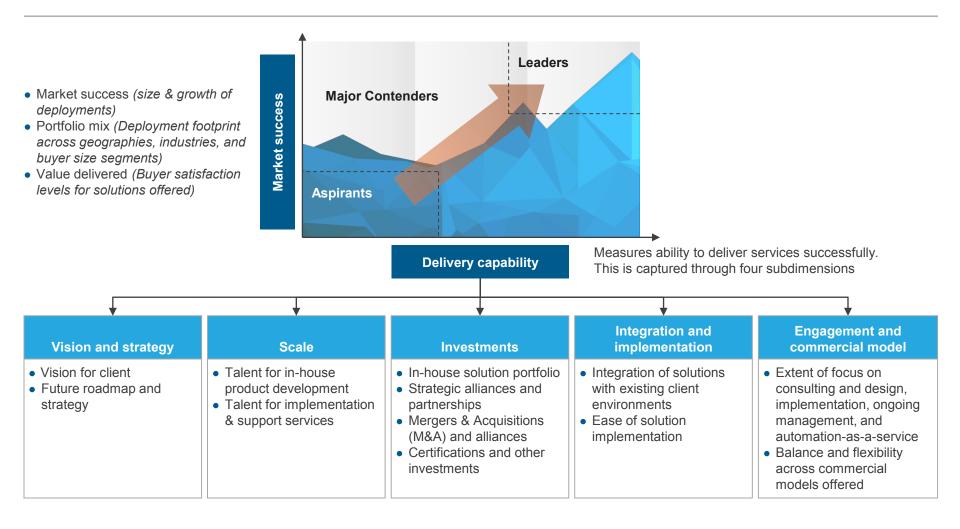
(Vision & strategy, scale, technology capability, investments, integration & implementation, and engagement & commercial model)

Everest Group's IT infrastructure services automation – PEAK Matrix for solutions is a composite index of a range of distinct metrics related to a service provider's vision & strategy, scale, technology capability, investments, integration & implementation, and resultant market impact in the context of <u>offering IT infrastructure services</u> automation solutions (i.e. software and associated services).



Dimensions of service providers' capability and market success underlying the PEAK Matrix for solutions





1 Measured through responses from referenced buyers for each service provider Source: Everest Group (2017)



FAQs (page 1 of 2)



Does the PEAK Matrix assessment incorporate any subjective criteria?

 Everest Group's PEAK Matrix assessment adopts an objective and fact-based approach (leveraging service provider RFIs and Everest Group's proprietary databases containing providers' deals and operational capability information). In addition, these results are validated / fine-tuned based on our market experience, buyer interaction, and provider briefings

Is being a "Major Contender" or "Aspirant" on the PEAK Matrix, an unfavorable outcome?

 No. PEAK Matrix highlights and positions only the best-in-class service providers in a particular functional/vertical services area. There are a number of providers from the broader universe that are assessed and do not make it to the PEAK Matrix at all. Therefore, being represented on the PEAK Matrix is itself a favorable recognition

What other aspects of PEAK Matrix assessment are relevant to buyers and providers besides the "PEAK Matrix position"?

PEAK Matrix position is only one aspect of Everest Group's overall assessment. In addition to assigning a "Leader",
"Major Contender" or "Aspirant" title, Everest Group highlights the distinctive capabilities and unique attributes of all
the PEAK Matrix providers assessed in its report. The detailed metric level assessment and associated commentary
is helpful for buyers in selecting particular providers for their specific requirements. It also helps providers showcase
their strengths in specific areas

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research?

- Participation incentives for buyers include a summary of key findings from the PEAK Matrix assessment
- Participation incentives for providers include adequate representation and recognition of their capabilities/success in the market place, and a copy of their own "profile" that is published by Everest Group as part of the "compendium of PEAK Matrix providers" profiles



FAQs (page 2 of 2)



What is the process for a service provider to leverage their PEAK Matrix positioning status?

- Providers can use their PEAK positioning rating in multiple ways including:
 - Issue a press release declaring their positioning/rating
 - Customized PEAK profile for circulation (with clients, prospects, etc.)
 - Quotes from Everest Group analysts could be disseminated to the media
 - Leverage PEAK branding across communications (e-mail signatures, marketing brochures, credential packs, client presentations, etc.)
- The provider must obtain the requisite licensing and distribution rights for the above activities through an agreement with the designated POC at Everest Group







About Everest Group

Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. We are trusted advisors to senior executives of leading enterprises, providers, and investors. Our firm helps clients improve operational and financial performance through a hands-on process that supports them in making well-informed decisions that deliver high-impact results and achieve sustained value. Our insight and guidance empowers clients to improve organizational efficiency, effectiveness, agility, and responsiveness. What sets Everest Group apart is the integration of deep sourcing knowledge, problem-solving skills and original research. Details and in-depth content are available at www.everestgrp.com.

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