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

Focus on TCS
April 2017
Introduction and scope

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

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, **TCS emerged as a Leader**. This document focuses on TCS’s IT infrastructure services automation experience and capabilities. It includes:

- TCS’s position on the IT infrastructure services automation PEAK Matrix
- Detailed profile of TCS’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

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)

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, 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).

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 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.

4. 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 autonomies 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

<table>
<thead>
<tr>
<th>IT infrastructure services</th>
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<tbody>
<tr>
<td>- Automation within IT infrastructure management (servers, storage, network, OS/virtualization, database, middleware, End User Compute (EUC), and service desk)</td>
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<tr>
<td>- Examples of tasks automated:</td>
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<tr>
<td>- Hardware or service provisioning</td>
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<tr>
<td>- Capacity management</td>
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<tr>
<td>- Helpdesk/support operations</td>
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<tr>
<td>- Patch management</td>
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<tr>
<td>- End-user automation</td>
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<tr>
<td>- Performance monitoring, incident management, self-healing, and prevention</td>
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<tr>
<td>- Transformation and modernization – using performance data to identify areas for improvement and modernization of IT infrastructure services</td>
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<tr>
<th>Application services</th>
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<tbody>
<tr>
<td>- Automation within Software Development and Life Cycle (SDLC) management</td>
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<tr>
<td>- Examples of tasks automated include:</td>
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<tr>
<td>- Rapid Application Development (RAD)</td>
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<td>- Code generation</td>
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<td>- Model-Driven Architecture / Development (MDA/MDD)</td>
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<tr>
<td>- Application release automation and deployment</td>
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<tr>
<td>- Test automation</td>
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<tr>
<td>- Transformation and modernization – using performance data to identify areas for improvement and modernization for application services</td>
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<th>Business process services</th>
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<tbody>
<tr>
<td>- Handling high volumes of repetitive administrative tasks, e.g., invoice settlement or benefits application processing</td>
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<tr>
<td>- Seeking and identifying patterns that can indicate unusual situations or activity, e.g., a deadline about to be breached or potential fraudulent activity</td>
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<tr>
<td>- Gaining commercial intelligence, e.g., used in price optimization in the travel and hospitality sector</td>
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<tr>
<td>- Front-office services such as automated voice as well as in-bound document handling</td>
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*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)

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)

- arago
- IPsoft
- Cortex
- ayehu
- Automic

- 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)

- CGI
- HCL
- IBM
- Tata Consultancy Services
- Infosys
- Wipro

- 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)
TCS is positioned as a Leader on Everest Group’s PEAK Matrix for Solutions: IT infrastructure services automation

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

![PEAK Matrix Diagram](image)

Vision and capability
(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)
TCS | IT infrastructure services automation profile
IT infrastructure services automation overview

Company vision
TCS believes that the future of IT infrastructure automation does not lie in procedure-based automation but in cognitive systems (non-procedural and self-learning) and artificial intelligence. TCS also believes that traditional automation is becoming less relevant and those unable to adapt to the new world of AI and cognitive will get disrupted. TCS leverages its in-house platform ignio™ as the cognitive, self-learning, and self-healing system for enterprise IT operations. ignio™ extends IT automation capabilities by providing a flexible and open cognitive platform for businesses.

Strengths
- Overall value proposition of ignio™ being a “tool of tools” for IT operations has been perceived as simple, yet effective, by clients
- TCS has strong referenceable enterprise proof-points for ignio™ (e.g., Nationwide and Nielsen) – ignio™ has helped elevate TCS’ managed services value proposition by offering significant cost reduction targets

Proprietary solutions (representative list)

<table>
<thead>
<tr>
<th>Solution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ignio™: Unified enterprise blueprint</td>
<td>ignio™ constructs unified enterprise blueprint by assimilating and mining unstructured, semi-structured, and structured data sources from within or outside an enterprise.</td>
</tr>
<tr>
<td>ignio™: Machine learning</td>
<td>ignio™ uses machine learning and deep learning techniques to self-learn enterprises’ context.</td>
</tr>
<tr>
<td>ignio™: Self-healing</td>
<td>ignio™ supports automated triage and self-healing from incidents. ignio™ uses enterprise blueprint to triage and resolve incidents.</td>
</tr>
<tr>
<td>ignio™: Automated provisioning and configuration</td>
<td>ignio™ automates provisioning and configuration of multi-layer IT environments.</td>
</tr>
<tr>
<td>ignio™ : Health Diagnostics</td>
<td>ignio™ systematizes and automates health checks and diagnostics of enterprise IT</td>
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</table>

Areas of improvement
- TCS needs to further strengthen its automation story in the workplace services space (currently lags behind select leaders in this regard)
- Needs to alleviate client apprehensions around vendor lock-in associated with ignio™ (cited in select cases)

Partnerships (representative list)

<table>
<thead>
<tr>
<th>Partner</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE, BMC, Service Now, VMware, Red Hat, and Keysight</td>
<td>TCS leverages its strategic partnerships for various automation activities such as cloud automation, run book automation, and post server provisioning automation.</td>
</tr>
</tbody>
</table>

Investments (representative list)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Digitate</td>
<td>Strategic business unit, with over 400 associates, which leads innovation in automation centered around ignio™.</td>
</tr>
<tr>
<td>Centers of Excellence for Automation</td>
<td>TCS has established multiple COEs with automation as the underlying theme – HP CoE, Service Now CoE, BMC CoE, VMware CoE, and Keysight CoE under its Global technology practice.</td>
</tr>
</tbody>
</table>

Source: Everest Group (2017)
Appendix
Knowledge (PEAK) Matrix is a proprietary framework for assessment of a service provider’s capability

**Everest Group PEAK Matrix™ for IT infrastructure services automation**

- **Leaders**
  - Top quartile performance across market success and capability

- **Major Contenders**
  - 2nd or 3rd quartile performance across market success and capability

- **Aspirants**
  - 4th quartile performance across market success and capability

**Vision and capability**

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

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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 offering IT infrastructure services automation solutions (i.e. software and associated services).
Dimensions of service providers’ capability and market success underlying the PEAK Matrix for solutions

- Market success (size & growth of deployments)
- Portfolio mix (Deployment footprint across geographies, industries, and buyer size segments)
- Value delivered (Buyer satisfaction levels for solutions offered)

Market success

Delivery capability

- Major Contenders
- Leaders
- Aspirants

Measures ability to deliver services successfully. This is captured through four subdimensions

Vision and strategy
- Vision for client
- Future roadmap and strategy

Scale
- Talent for in-house product development
- Talent for implementation & support services

Investments
- In-house solution portfolio
- Strategic alliances and partnerships
- Mergers & Acquisitions (M&A) and alliances
- Certifications and other investments

Integration and implementation
- Integration of solutions with existing client environments
- Ease of solution implementation

Engagement and commercial model
- Extent of focus on consulting and design, implementation, ongoing management, and automation-as-a-service
- Balance and flexibility across commercial models offered

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](http://www.everestgrp.com).

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