



IT Infrastructure Services Automation - Market Trends and Services PEAK Matrix™ Assessment 2018: Become Al Aware or Fall Behind

Cloud & Infrastructure Services (CIS)

Market Report – July 2018 – Complimentary Abstract / Table of Contents



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- 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



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Background of the research

Background of the research

- IT infrastructure services automation is high on the agenda of enterprises and service providers alike. However, most enterprises are yet to derive commensurate benefits from their automation investments and lack a long-term transformational roadmap
- The IT infrastructure services landscape is undergoing a significant shift, driven by digitalization. As the focus shifts from cost efficiency to digital enablement, organizations need to reimagine the IT infrastructure services model to deliver the necessary back-end agility, flexibility, and fluidity. Automation, analytics, and Artificial Intelligence (AI) have the potential to enable this desired level of adaptability within IT infrastructure services
- In this research, we discuss the latest IT infrastructure services automation market trends and present the assessment and detailed
 profiles of 20 IT service providers featured on the IT infrastructure services automation PEAK Matrix. Each service provider profile gives
 a comprehensive picture of their IT infrastructure services automation vision & strategy, technology & services capabilities, and innovation
 & investments
- The assessment is based on Everest Group's annual Request For Information (RFI) process conducted in Q1 and Q2 2018, interactions with leading IT infrastructure services automation service providers, and analysis of the IT infrastructure services automation marketplace

Scope of this report

- Services: IT infrastructure services automation
- Geography: Global
- Service providers: 20 leading IT infrastructure services automation providers

This report includes profiles of the following 20 service providers on the IT infrastructure services automation PEAK Matrix:

- Leaders: DXC Technology, HCL Technologies, IBM, TCS, and Wipro
- Major Contenders: Accenture, CGI, Cognizant, CSS Corp, GAVS Technologies, Genpact, Infosys, Microland, Mphasis, NTT DATA, Tech Mahindra, and Zensar
- Aspirants: Hexaware, NIIT Technologies, and Syntel



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 simply a 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 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 a Return On Investment (ROI) that can motivate central IT groups to invest their resources
- Cognitive computing is a breakthrough in automation. Traditional automation uses 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 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.

This report focuses on IT infrastructure services automation and offers insights into prominent IT service providers operating in this space

NOT EXHAUSTIVE Services delivery automation IT infrastructure services **Application services Business process services** Automation within IT infrastructure Automation within Software Handling high volumes of repetitive management (servers, storage, network, Development and Life Cycle administrative tasks, e.g., invoice OS/virtualization, database, middleware, (SDLC) management settlement or benefits End-User Compute (EUC), and • Examples of tasks automated include: application processing service desk) Rapid Application Development Seeking and identifying patterns that Examples of tasks automated: (RAD) can indicate unusual situations or Hardware or service provisioning Code generation activity, e.g., a deadline about to be Capacity management Model-Driven Architecture / breached or potential fraudulent activity Helpdesk/support operations Development (MDA/MDD) Gaining commercial intelligence, e.g., Patch management Application release automation used in price optimization in the travel End-user automation and hospitality sector and deployment - Performance monitoring, incident Test automation Front-office services such as automated Transformation and modernization – management, self-healing, voice as well as in-bound and prevention using performance data to identify areas document handling Transformation and modernization – for improvement and modernization for using performance data to identify areas application services for improvement and modernization of IT infrastructure services

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.

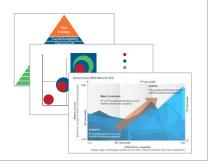


Our research methodology is based on four pillars of strength to produce actionable and insightful research for the industry

- Market thought leadership
- Actionable and insightful research
- Syndicated and custom research deliverables

Robust definitions and framework

(PEAK Matrix, market maturity, and technology adoption/investment)



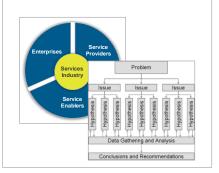
Primary sources of information

(Annual contractual and operational RFIs, service provider briefings, and market feedback)



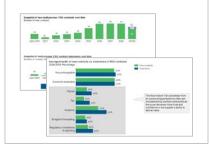
Diverse set of market touchpoints

(Ongoing interactions with key stakeholders, input from a mix of perspectives and interests, as well as support via data analysis and thought leadership)



Fact-based research

(Data-driven analysis with expert perspectives, trend analysis across market adoption, contracting, and service providers)



- Annual RFI process and interaction with leading IT infrastructure and cloud service providers
- Dedicated team for IT infrastructure and cloud services adoption trends
- Over 25 years of experience in advising clients on global services decisions
- Executive-level relationships with buyers, service providers, technology providers, and industry associations



Everest Group's IT infrastructure services automation research is based on four key sources of proprietary information

- Proprietary database of IT service contracts of major IT service providers with IT infrastructure services scope of work (updated annually)
- The database tracks the following elements of each contract:
 - Buyer details including size and signing region
 - Contract details including service provider, contract type, TCV and ACV, service provider FTEs, start and end dates, duration, and delivery locations
- Scope details including share of individual buyer locations being served in each contract, Line of Business (LoB) served, and pricing model employed
- Proprietary database of IT service providers (updated annually)
- The database tracks the following for each service provider:
 - Revenue and number of FTEs
- Number of clients
- FTE split by different lines of business
- Revenue split by region
- Location and size of delivery centers
- Technology solutions developed

- Service provider briefings
- Vision and strategy

- Key strengths and improvement areas
- Annual performance and future outlook
- Emerging areas of investment
- Buyer reference interviews, ongoing buyer surveys, and interactions
 - Drivers and challenges for adopting IT infrastructure services automation
 - Assessment of service provider performance
- Emerging priorities
- Lessons learnt and best practices









































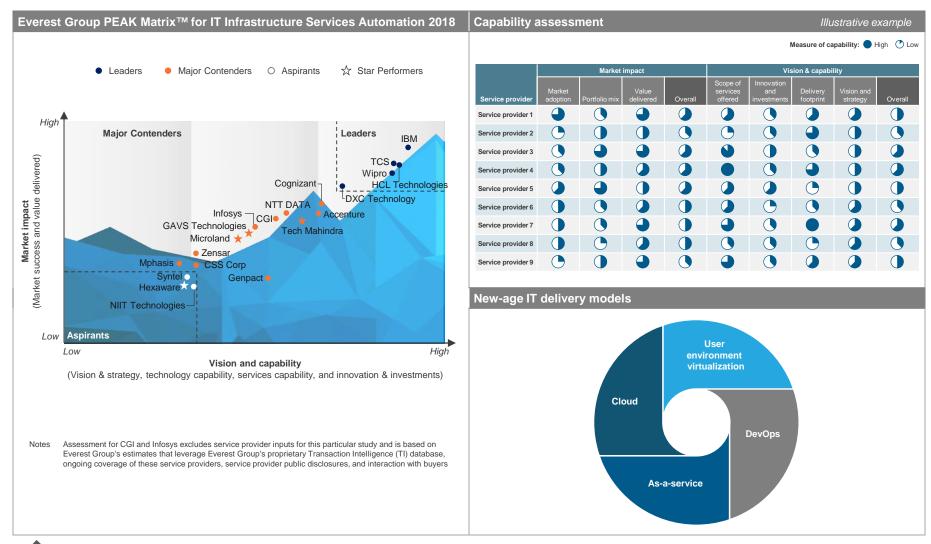


Note: Assessment for CGI and Infosys excludes service provider inputs in this particular study and is based on Everest Group's estimates that leverage Everest Group's proprietary Transaction Intelligence (TI) database, ongoing coverage of these service providers, service provider public disclosures, and interaction with buyers

Confidentiality: Everest Group takes its confidentiality pledge very seriously. Any information, that is contract-specific, will be presented back to the industry only in an aggregated fashion



The report focuses on the IT infrastructure services automation market trends and presents the assessment and detailed profiles of 20 IT service providers





This IT infrastructure services automation compendium report has 20 IT service provider profiles focusing on their IT infrastructure services automation solutions, partnerships, and recent investments

XYZ | IT infrastructure services automation profile

Overview

XYZ's vision revolves around digital transformation driven through automation and smart machines, driving user experience, and resource optimization through its ABC Framework. It seeks to bring automation as part of L1/L2/L3 activities and automate the entire CI/CD/CT processes that are also a part of the cloud environment. It aims to enable assessment and migration to the target cloud platform with zero downtime and zero data loss. Additionally, XYZ claims that it has been successful in early implementation of instrumentation and end-user environment, thereby achieving enhancement in end-user experience.

Strengths

- Internal IP/solutions (e.g., ABC, DEF, and GHI) are witnessing increasing traction within existing clients and delivering meaningful automation benefits
- Clients have appreciated XYZ's flexibility to contextualize solutions and its readiness to make investments for the client to ensure significant value addition

Areas of improvement

- Clients believe that XYZ has strong capabilities around monitoring and alerting, but needs to enhance its end-to-end automation capabilities to help in issue remediation without human intervention
- Proof points around building and executing on large-scale comprehensive transformation roadmaps are still limited in number

Solution	solutions (representative list) Details
XXXX	Enables classification of alerts into primary/secondary tiers and establishes a relationship between them. Uses alert correlation rules to group alerts that are related
XXXX	Monitors configuration changes. Has 125 built-in pre-configured ready-to-use workflows to avoid manual intervention in monitoring applications, servers, and databases
XXXX	An integrated suite of solutions that can monitor across the end-user to the storage layer. Provides user experience index, root cause analysis, and application health index
XXXX	Desktop virtualization engine that offers a cloud-ready platform to deliver end-to-end functionality for public and private cloud
XXXX	Environment-as-a-Service (EaaS) tool that enables provisioning of servers, platform services, and application services in an automated way
XXXX	Automatically discovers the inventory of relevant network devices, nodes, and servers in an environment and stores it in the Configuration Management Database (CMDB)

Partnerships (representative list)		
Partner	Details	
XXXX	Gold partnership in which XYZ leverages XXXX and XXXX to create data models and algorithms using infrastructure data to provide predictive insights. Automates data science, thereby reducing the need for training data; provides predictive and prescriptive analysis	
XXXX	Working on a white-labelling partnership to build an automation platform. Enables customers to reduce manual IT processes, thus enhancing productivity	
XXXX	Signed a white-labelling partnership to implement DaaS (Desktop-as-a-service) solution for customers	

Recent activities (representative list)		
Development	Details	
Collaborative innovation and research	Ideates for joint research in the field of Al in IT infrastructure management. This includes collaboration in terms of physical space, platforms, and people from IT-Madras in India and XYZ	
XYZ learning academy	Avenue for employees to enhance knowledge on the latest technology trends including automation	

Source: Everest Group (2018)



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Research calendar - Cloud and infrastructure services

Published Planned	Current release
Flagship CIS reports	Release date
Top 30 IT Security Trailblazers: Rise of the "Digital" Security Paradigm	January 2018
Digital Workplace Services – Market Trends and PEAK Matrix™ Assessment	June 2018
IT Infrastructure Services Automation – Market Trends and Services PEAK Matrix™ Assessment 2018: Become Al Aware or Fall Behind	
Al Stands to Make IT Infrastructure Services "Invisible"	Q3 2018
IT Security Services – Market Trends and PEAK Matrix™ Assessment	Q3 2018
Cloud Enablement Services – Market Trends & PEAK Matrix™ Assessment	Q3 2018
Cloud Identity and Access Management (IAM) Trailblazers	Q4 2018
Software Defined Infrastructure (SDI) Solutions – Market Trends & PEAK Matrix™ Assessment	Q4 2018
Thematic CIS reports	
Upcoming Contract Renewals – Infrastructure Services	February 2018
Enterprise Pulse	March 2018
Enterprise Primer For Artificial Intelligence & Machine Learning	Q3 2018
BigTech Wars – Container Orchestration	Q3 2018
Viewpoint – Demystifying IT Infrastructure Services Automation	Q3 2018
Viewpoint – Security Services Automation and Analytics: Hype vs. Reality	Q3 2018



Note: For a list of all CIS reports published by us, please refer to our website page

Additional ITS research references

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

- 1. Digital Workplace Services Market Trends and PEAK Matrix™ Assessment: Enterprise's Wish is Not Service Provider's Command! (EGR-2018-29-R-2659); 2018. This report focuses on the latest digital workplace services market trends and presents the assessment and detailed profiles of 20 IT service providers featured on the digital workplace services PEAK Matrix. The report also discusses in detail the existing confusion in the market in terms of what digital workplace entails and how the market participants should strategize to move toward a true digital workplace
- 2. Upcoming Contract Renewals Cloud & Infrastructure Services 2018 (<u>EGR-2018-29-R-2555</u>); 2018. The report "Upcoming Contract Renewals Infrastructure Services" includes data and insights specific to deals nearing end of term, expanding on analysis of ITS and BPS deals nearing end of term by buyer geography and buyer industry, trends in IS and bundled deal renewals by buyer industry, buyer geography, and service provider category, and analysis of infrastructure services contract renewals by scope across geographies

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