Everest Group PEAK Matrix® for Mainframe Service Providers 2022

Focus on HCL Technologies

December 2021

Background of the research

Despite many heralding the end-of-the-road for mainframe systems, these continue to be critical components in enterprise IT. They are still considered a strong choice for enterprises needing large processing capacities for high-volume transactions. These systems are known for superior performance and reliability delivered on the back of their unique computing architecture. However, as the pace of digital transformation mandates picks up, most enterprises are evaluating their mainframe systems for better optimization and compatibility with modern platforms and applications. Limitations around availability of skilled resources also influence enterprise decisions in this regard. Manufacturers and service providers have responded with innovative solutions for faster application deployments, intelligent optimization, and integration into modern hybrid environments.

In this research, we present an assessment and detailed profiles of 14 mainframe service providers featured on the mainframe services PEAK Matrix®. The assessment is based on Everest Group's annual RFI process for calendar year 2021, interactions with leading mainframe services providers, client reference checks, and an ongoing analysis of the mainframe services market.

This report includes the profiles of the following 14 leading mainframe service providers featured on the Mainframe Services PEAK Matrix®:

- **Leaders:** Accenture, Capgemini, HCL Technologies, IBM, and TCS
- **Major Contenders:** Atos, Cognizant, DXC Technology, Ensono, Infosys, and Mindtree
- **Aspirants:** Mphasis, Unisys, and UST

Scope of this report:

Geography
Global

Service providers
14

Services
Mainframe services

Mainframe services PEAK Matrix® characteristics

Leaders:

Accenture, Capgemini, HCL Technologies, IBM, and TCS

- Leaders in mainframe services have demonstrated extensive capabilities in delivering global mainframe services, backed by robust delivery organizations, capability expansion, and improvements in process maturities
- These players have a balanced vision for mainframe services and focus on building innovative, tailored solutions for clients that deliver business outcomes quickly while also maximizing value from their client's existing investments in mainframes
- All Leaders have made investments in building extensive portfolios of platforms, tools, and accelerators through acquisitions and in-house capability expansion for innovation across the mainframe services value chain

Major Contenders:

Atos, Cognizant, DXC Technology, Ensono, Infosys, and Mindtree

- Major Contenders in the mainframe services space include a mix of mostly large and mid-sized service integrators
- While these players have built meaningful capabilities to deliver mainframe services, their service portfolios and delivery capabilities are not as balanced as those of Leaders (either in terms of coverage across industry verticals or geographies or both) which reflects in the scale of market success achieved by these players (vis-a-vis Leaders)
- These players are making targeted investments in mainframe talent, delivery frameworks, internal IP, and partnerships to fix capability gaps – making them strong contenders as Leaders in mainframe services
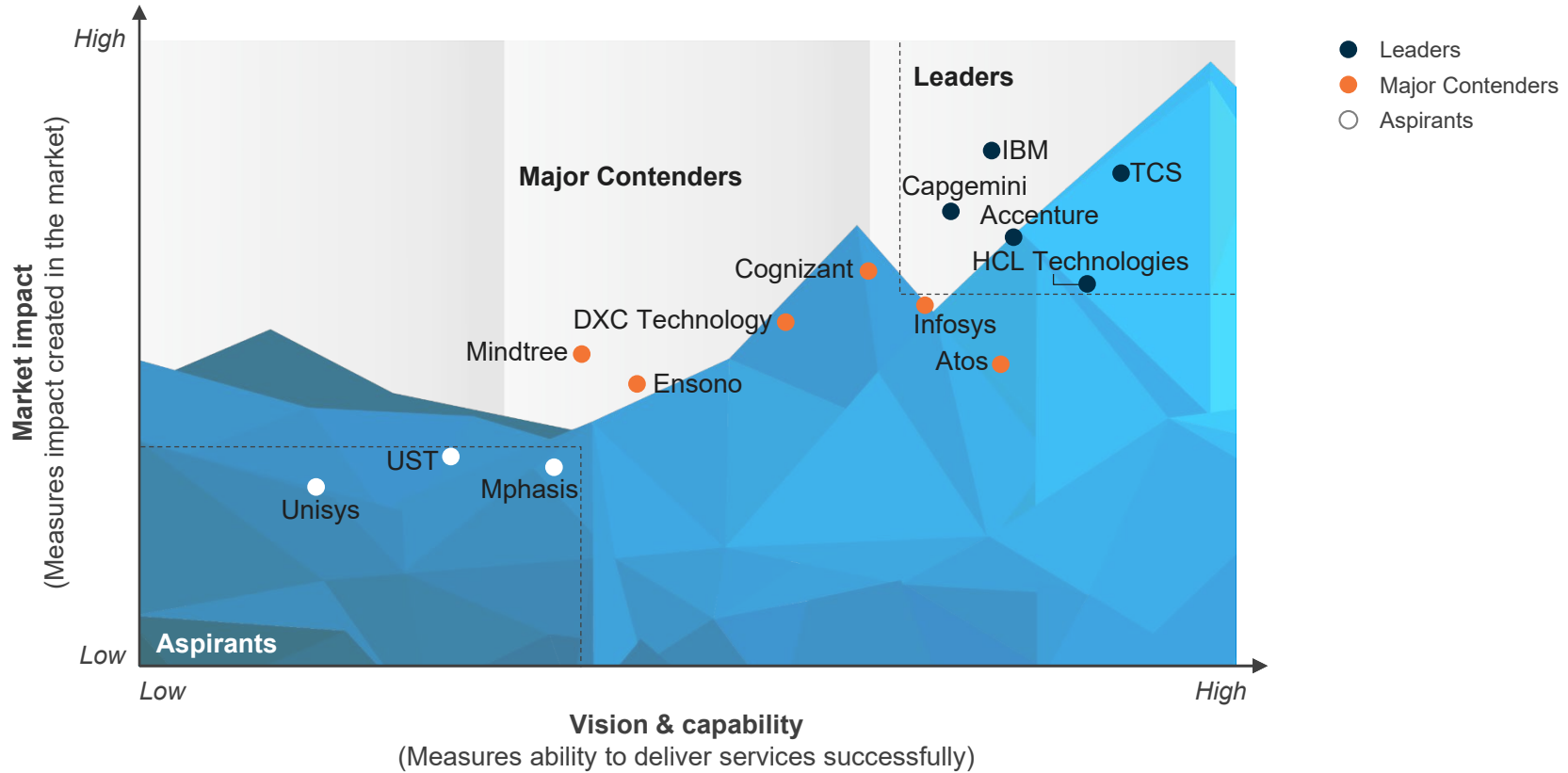
Aspirants:

Mphasis, Unisys, and UST

- Mainframe services capabilities of Aspirants show more gaps in the balance of mainframe services, maturity of internal IP, and coverage across industry verticals or geographies
- These players are however expanding broader mainframe capabilities through investments in IP portfolios, niche platforms, and service and technology partnerships – keeping them poised to be major challengers in the space

Everest Group PEAK Matrix®
Mainframe Services PEAK Matrix® Assessment 2022 | HCL Technologies positioned as Leader

Everest Group Mainframe Services PEAK Matrix® Assessment 2022[1]

Legend:
- Leaders (dark)
- Major Contenders (orange)
- Aspirants (open)

Leaders: IBM, TCS, Capgemini, Accenture, HCL Technologies

Major Contenders: Cognizant, DXC Technology, Mindtree, Ensono, Infosys, Atos

Aspirants: UST, Mphasis, Unisys

Axes:
- Market impact (Measures impact created in the market) — Low to High
- Vision & capability (Measures ability to deliver services successfully) — Low to High

1   Assessment for Atos excludes service provider inputs and is based on Everest Group's proprietary Transaction Intelligence (TI) database, ongoing coverage of these service providers, service provider public disclosures, and Everest Group's interaction with buyers

Source: Everest Group (2021)

HCL Technologies | mainframe services profile (page 1 of 6)
Everest Group assessment – Leader

Measure of capability: ◔ Low ● High

Market impact				Vision & capability				
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Scope of services	Innovation & investments	Delivery footprint	Overall
◕	◕	◔	◕	◕	◕	◕	●	◕

Strengths

- HCL Technologies' value-led approach to mainframe transformation results in solutions tailored to deliver greater RoI by evaluating business value, process, experience, and organizational change

- Acquisition of IBM's tools portfolio and investments in homegrown accelerators have helped it create an extensive set of solutions that aid in end-to-end mainframe services

- The company's acquisition of Volvo IT and its continued expansion have given it extensive mainframe hosting capabilities in central Europe and key modernization accelerators

- It has very structured programs in place for upskilling and cross skilling new hires, experienced hires, and interns on mainframe and modern technologies – with certifications, internal, and partner-sourced trainings

- HCL Technologies has successfully leveraged acquisitions and joint ventures to expand its mainframe consulting capabilities and build domain-specific solutions

Limitations

- Gaps exist in HCL Technologies' capabilities and tools to cover mainframe services aligned to non-IBM mainframe systems, especially in growth regions such as Japan and LATAM

- Limited proof points and partner co-branded case studies in the public domain have curtailed widespread awareness of its mainframe services capabilities and expertise

- It has scope for further improvement in the level of industrialization in its mainframe reverse engineering and modernization accelerators

- HCL Technologies needs to further enhance partnerships with niche ecosystem players for innovative solutions that accelerate analysis and modernization of mainframe applications

HCL Technologies | mainframe services profile (page 2 of 6)
Overview

Low (<10%) ■ Medium (10-25%) ■ High (>25%)

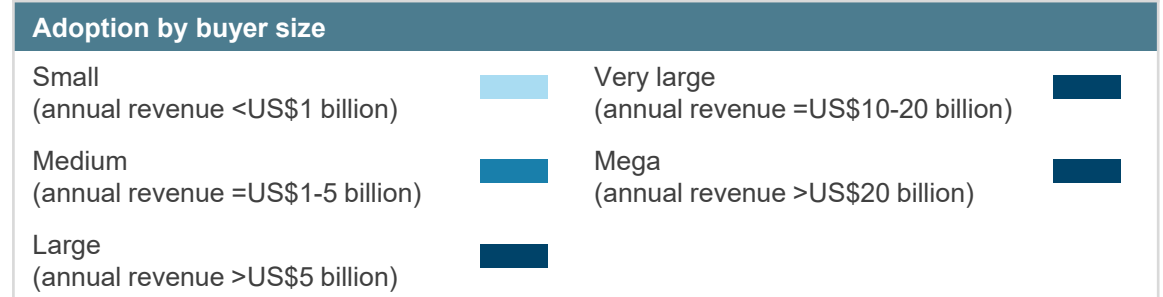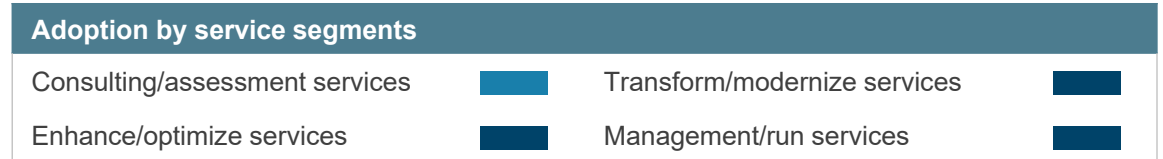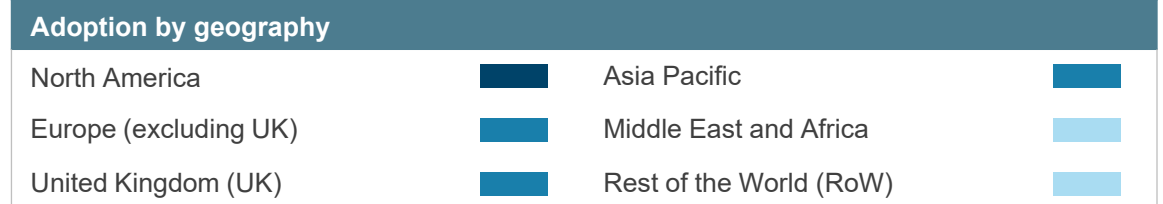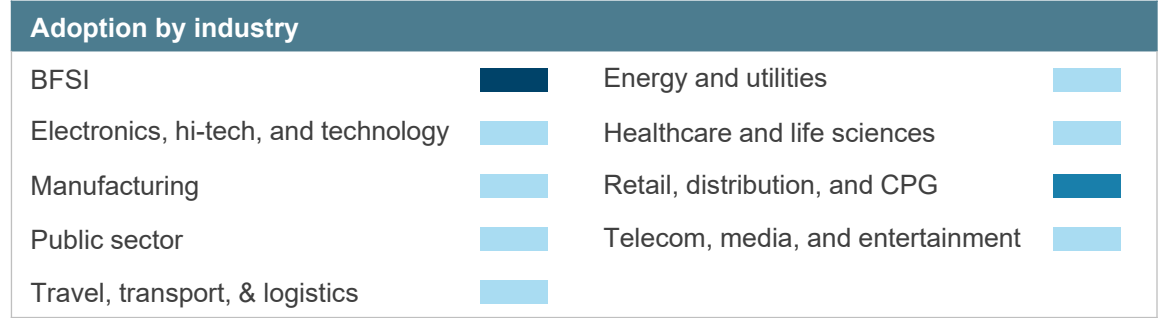**Vision:** HCL focuses on delivering business down, experience-centric, and outcome-oriented benefits to its industry buyers through deep integrations with capabilities in application development, cloud, core infrastructure, research and development, engineering, and products and platforms. It believes that mainframe will continue to drive business-critical applications and bring resilience in business operations despite digital transformation priorities fueling the demand for cloud migration. HCL aims to help clients run, optimize, and effectively utilize their mainframe spend with an emphasis on availability, security, and scalability while seeking avenues for optimization and modernization.

Mainframe services revenue (2020)

<US$200 million	US$200-500 million	US$500-1 billion	>US$1 billion

Scope of coverage: HCL's mainframe services methodology aims to be agile and adaptable to its client's changing business needs. Its scope of mainframe services includes the enhancement of the current platform to extract greater value through performance optimization, in-place modernization, and technology upgrades, reengineering of the applications post rule extraction, tool-based technology stack conversions, SaaS migrations, and cloud migrations.

Adoption by industry

BFSI	■ High	Energy and utilities	■ Low
Electronics, hi-tech, and technology	■ Low	Healthcare and life sciences	■ Low
Manufacturing	■ Low	Retail, distribution, and CPG	■ Medium
Public sector	■ Low	Telecom, media, and entertainment	■ Low
Travel, transport, & logistics	■ Low		

Adoption by geography

North America	■ High	Asia Pacific	■ Medium
Europe (excluding UK)	■ Medium	Middle East and Africa	■ Low
United Kingdom (UK)	■ Medium	Rest of the World (RoW)	■ Low

Adoption by service segments

Consulting/assessment services	■ Medium	Transform/modernize services	■ High
Enhance/optimize services	■ High	Management/run services	■ High

Adoption by buyer size

Small (annual revenue <US$1 billion)	■ Low	Very large (annual revenue =US$10-20 billion)	■ High
Medium (annual revenue =US$1-5 billion)	■ Medium	Mega (annual revenue >US$20 billion)	■ High
Large (annual revenue >US$5 billion)	■ High		

HCL Technologies | mainframe services profile (page 3 of 6)
Case studies

Case study 1	A health information technology and services firm modernizes its legacy mainframe application for better usability and maintainability.

Client: A large US health information technology and services firm

Business challenge

The firm wanted to transform and modernize its two-decade old monolithic child support application based on mainframe, improve user interface, implement Section 508 (ADA Compliance) for disabled/challenged users, improve code maintainability, optimize processes, and enhance performance.

Solution

HCL transformed the legacy child support application from Natural Adabas and DB2 to J2EE stack by using its ADvantage Modernize tool. It also created detailed documentation for the overall process life cycle services. HCL enhanced interfaces with banks, DMV, FPLS, CESNET, and other federal systems. It migrated and cleansed over 15 years of existing DB2 data to SQL servers. HCL executed automated functional, accessibility, and performance testing for a seamless global rollout of the enhanced application.

Impact

- 50% reduction in modernization effort
- Improvement in staff productivity through efficient case handling
- Reduction in application maintenance cost
- Improvement in customer service and satisfaction scores

Case study 2	A US freight railroad company modernizes its mainframe application to enable business agility and competitiveness.

Client: A leading US freight railroad network

Business challenge

The organization wanted to modernize and migrate its mainframe applications. It embarked on a multi-year transformation program for its service systems, with the core objectives being risk reduction using technology, data and skills, improvement in functionality and competitiveness, enhanced unit train support, improved customer integrations, improved analytics and data visibility, and cost reduction for its mid-tier platform, licenses, and data storage.

Solution

HCL executed a tool-assisted inventory and business rule extraction process to document the mainframe system. It adopted proven industry standards to build a robust framework for the co-existence of modern application components with legacy systems. HCL leveraged open-source technologies to minimize license costs and reduce risk of vendor lock-in. Standardized, persona-driven, and intuitive UI was developed for responsive and consistent interfaces.

Impact

- 30% automation of the business rule engine work
- Rapid mainframe modernization and accrual of RoI for a large estate
- Improvement in business agility and minimized risk of vendor lock-in
- Minimization of risk to core business operations due to workforce constraints and technology debt

HCL Technologies | mainframe services profile (page 4 of 6)
Solutions

Proprietary solutions (representative list)	
Solution name	**Details**
ADvantage Modernize	Automation platform that enables the migration and modernization of applications to modern, open, and non-proprietary technology stacks with minimum effort.
ADvantage Cloud	Cloud assessment and migration tool. It has capabilities for application migration to cloud, mass migration and data import, security assessments, cloud integration, and rehost for Azure, AWS, PCF, and OpenShift.
App360	Application life cycle management tool that helps improve application life cycle experience through automation and unified views. It also provides integrated views of overall project/program health (KPIs) and offers analytics-enabled Insights for mid-course correction. It is stated to improve project quality, traceability, consistency, and cycle times.
ADvantage Code	Framework for improved productivity in cloud-native application development via engineering automation during the development process. It enables model-driven code-generation, codified best-practices, DevOps implementation, and cloud deployments.
ADvantage Upgrade	Suite of utilities that automates the assessment and modernization of the application servers, language frameworks, and other runtime libraries to the latest versions.
HDAP	Development-ready platform for rapid coding of business APIs, design and runtime standardization, orchestration of various surround systems, and improvement of time-to-market to rollout business APIs.
Sketch	Framework for the rapid development and deployment of data pipelines. It offers capabilities for data migration, governance, lineage, metadata management, standardized configurations, and in-built DevOps.
iLIT-DC suite	Suite of solutions for the analysis of source components. It aids in drawing a mainframe modernization strategy. It is designed to support COBOL, PL/1, NATURAL, DB2, VSAM, IMS, and CICS components and provides a workspace-based environment to manage the inventory.
zTune	Framework for the optimization of mainframe systems, subsystems, and applications. It has the capabilities for the performance optimization of resource usage, software and utilities consolidation, zIIP workload offloading, and development and test region offloading.

HCL Technologies | mainframe services profile (page 5 of 6)
Partnerships

Partnerships (representative list)	
Partner name	**Details**
IBM	HCL has been awarded a premier Global System Integrator (GSI) status by IBM. It acquired a series of IBM software development, testing, and automation tools, and drives its development agenda.
Oracle	HCL is a global Platinum Partner for Oracle. With a dedicated Oracle practice, this partnership has given HCL capabilities in mainframe modernization, data deduplication, and storage consolidation.
AWS	It is an AWS Premier Consulting Partner and a certified AWS Mainframe Migration Competency Partner. The partnership has helped HCL in developing modernization and migration capabilities.
Microsoft	HCL is a Microsoft Gold Certified Partner. Apart from having a dedicated business unit, HCL has a physical location on the Microsoft campus, with access to engineering and sales teams.
Google	HCL is a Premier and a Managed Service Partner to Google Cloud Platform. The recently announced dedicated Google Cloud business unit has helped HCL develop further capabilities in data transformations to cloud.
Cisco	HCL's expertise in Cisco-based solutions has given it modernization capabilities in connectivity and data migration.
Software AG	SoftwareAG and HCL partner in optimizing client's digital transformation journeys. The collaboration helps in the execution of services in process consulting, Service-Oriented Architecture (SOA), Business Process Management (BPM), and event processing.
CA (Broadcom)	HCL is the preferred services partner for Broadcom's enterprise software products and is engaged with CA in expanding the portfolio of products.
Dell	Dell and HCL partner on digital transformation engagements. With a large number of professionals trained on Dell platforms, HCL executes large-scale digital transformations combining its IT services capabilities with the former's technology.
Micro Focus	HCL is a testing partner for Micro Focus' suite of solutions. It has invested in developing Micro Focus test tools-based solutions and utilities. It also has dedicated testing labs with access to Micro Focus testing tools.

HCL Technologies | mainframe services profile (page 6 of 6)
## Investments and recent activities

Investments and recent activities (representative list)	
Theme	**Details**
Innovation	Establishment of three co-innovation labs dedicated to mainframe services, which has design thinking practitioners, UX experts, process consultants, anthropologists, digital program managers, commerce evangelists, visual designers, and technology architects.
Acquisition	Acquisition of over 1,000 IBM employees and over 40 products including Rational, Tivoli, Notes, and Domino. HCL is responsible for the development of these products.
Acquisition	Establishment of a joint venture with DXC Technology on the creation of CeleritiFinTech (CFT) combining DXC's banking software and HCL's product engineering and application implementation capabilities.
Acquisition	Acquisition of Volvo's IT – which has helped HCL become one of the major mainframe service providers in Central Europe.
Talent development	Investments in training over twenty thousand resources in various domains, vendor-based programs, cross-skilling programs, and campus-hire talent development programs.
Innovation	Institution of an eSTiP Ecosystem Innovation Program focused on start-ups. It aims to bring together Innovation stakeholders from customers, HCL, start-ups, VCs, and trade and consulate consortiums.
IPs & solution offerings	Investments in the development of industry-aligned solutions, and modernization IP and accelerators.
Hyperscaler business units	Establishment of dedicated ecosystem units with Microsoft and GCP. HCL has also invested in creating joint go-to-market propositions with Azure, GCP, and IBM.

Appendix

Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability

Everest Group PEAK Matrix
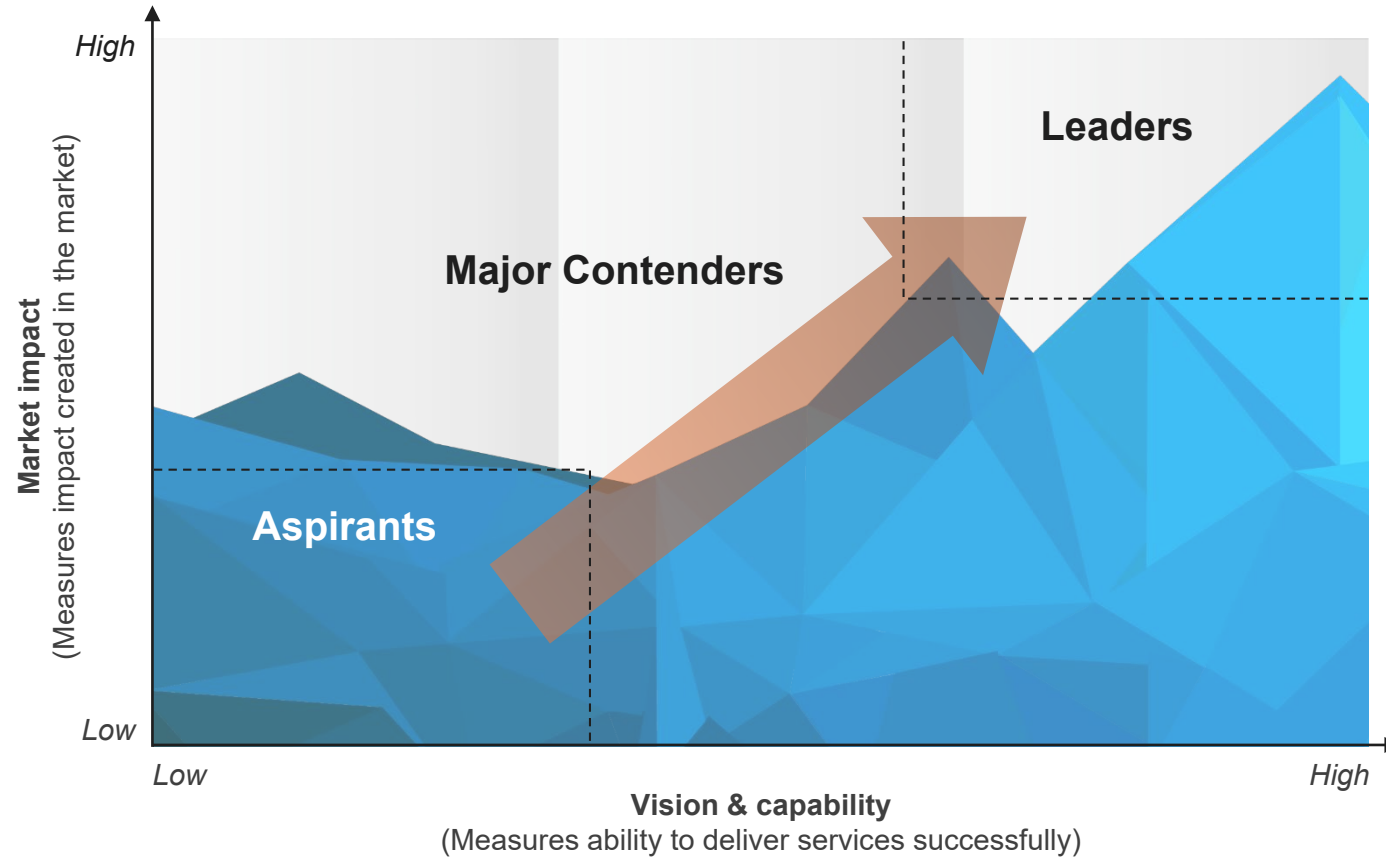
Services PEAK Matrix® evaluation dimensions

Measures impact created in the market –
captured through three subdimensions

Market adoption
Number of clients, revenue base,
YOY growth, and deal value/volume

Portfolio mix
Diversity of client/revenue base across
geographies and type of engagements

Value delivered
Value delivered to the client based
on customer feedback and
transformational impact

Market impact

Leaders

Major Contenders

Aspirants

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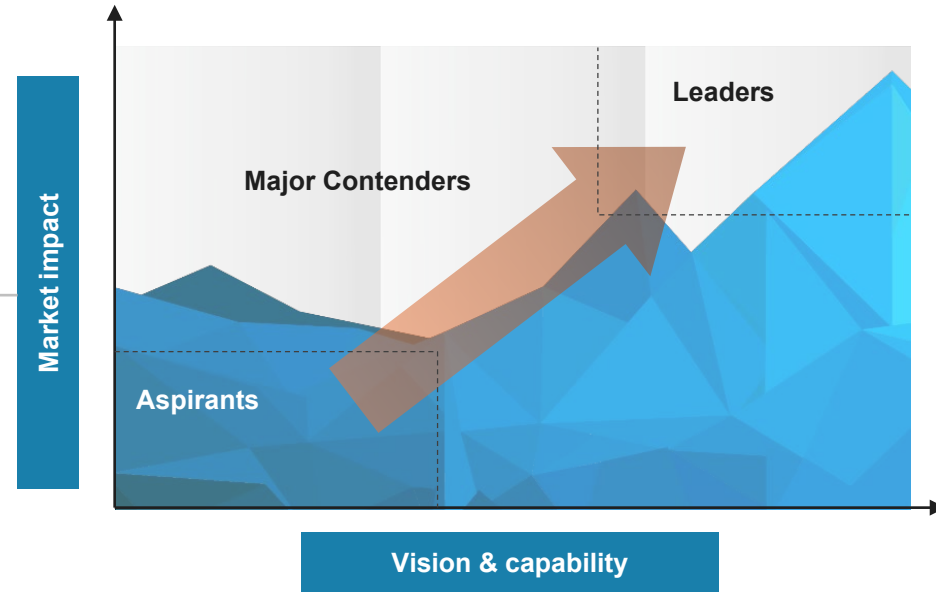
Measures ability to deliver services successfully.
This is captured through four subdimensions

Vision and strategy
Vision for the client and itself; future
roadmap and strategy

Scope of services offered
Depth and breadth of services portfolio
across service subsegments/processes

Innovation and investments
Innovation and investment in the enabling
areas, e.g., technology IP, industry/domain
knowledge, innovative commercial
constructs, alliances, M&A, etc.

Delivery footprint
Delivery footprint and global sourcing mix

FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?
Everest Group's PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging service provider / technology vendor 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/vendor briefings

Is being a "Major Contender" or "Aspirant" on the PEAK Matrix, an unfavorable outcome?
No. The PEAK Matrix highlights and positions only the best-in-class service providers / technology vendors in a particular space. 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"?
A 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/vendors for their specific requirements. It also helps providers/vendors 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/vendors 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

What is the process for a service provider / technology vendor to leverage their PEAK Matrix positioning and/or "Star Performer" status ?
- Providers/vendors can use their PEAK Matrix positioning or "Star Performer" rating in multiple ways including:
  – Issue a press release declaring their positioning. See citation policies
  – Customized PEAK Matrix profile for circulation (with clients, prospects, etc.)
  – Quotes from Everest Group analysts could be disseminated to the media
  – Leverage PEAK Matrix 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.

Does the PEAK Matrix evaluation criteria change over a period of time?
PEAK Matrix assessments are designed to serve present and future needs of the enterprises. Given the dynamic nature of the global services market and rampant disruption, the assessment criteria are realigned as and when needed to reflect the current market reality as well as serve the future expectations of enterprises

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With you on the journey

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