Everest Group®

Everest Group PEAK Matrix® for Internet of Things (IoT) Supply Chain Solution Provider 2022

Focus on TCS
January 2022

Everest Group PEAK MATRIX®

Background of the research

Business resilience has been top priority for enterprises as they aim to revive and grow their businesses in a post-pandemic era. Digitization of their existing supply chain is the first step in achieving this goal, and Internet of Things (IoT) technology lies at the center of this. Around 40% firms have already embarked on this journey, leveraging IoT to develop an interconnected supply chain that brings together suppliers/vendors, logistics providers, manufacturers, wholesalers/retailers, and customers dispersed by geography. This is aiding firms in better demand forecasting, tracking and tracking of products and fleet, and better monitoring of asset conditions. As enterprises aim to accelerate the time-to-market of their supply chain initiatives, leverage of IoT-based solutions becomes pertinent for them. In this regard, they are partnering with IoT solution and service providers.

In this research, we present an assessment of solution as well as service providers that exhibit a strong focus on supply chain through their IoT-based solutions. This includes only providers that have developed IoT-enabled solutions aimed at addressing challenges across the supply chain landscape with use cases including, but not limited to, fleet management, inventory management, warehouse management, and cold chain monitoring.

The assessment of these providers is featured on the IoT supply chain solutions PEAK Matrix®. Each solution provider profile provides insights into their strengths and limitations across themes including, but not limited to, services, investments, and case studies. The assessment is based on Everest Group's annual RFI process for calendar year 2021, interactions with leading IoT supply chain solution providers, client reference checks, and an ongoing analysis of the IoT solutions market.

We have assessed the following 11 solution providers on the IoT supply chain solutions PEAK Matrix®:

- **Leaders:** Hitachi Vantara and TCS
- **Major Contenders:** Bosch, FourKites, Mindtree (NxT), NTT DATA, Project 44, Roambee, and Samsara
- **Aspirants:** FarEye and Shippeo

Scope of this report:

Geography
Global

Solution providers
11

Solutions
IoT supply chain solutions

IoT supply chain solutions PEAK Matrix® characteristics

Leaders:

Hitachi Vantara and TCS

- Leaders have invested in a robust portfolio of supply chain solutions leveraging IoT and next-generation technologies such as AI/ML, blockchain, and edge computing to provide real-time insights to customers
- Strong partner ecosystem with specialist supply chain providers across warehouse management, control towers, transportation management systems, etc., supplemented by innovative use cases that go beyond tracking and tracing of supply chain elements is helping the Leaders differentiate themselves from peers

Major Contenders:

Bosch, FourKites, Mindtree (NxT), NTT DATA, Project 44, Roambee, and Samsara

- Most of the Major Contenders are strengthening their track and trace offerings within supply chain by enhancing the multi-modal capabilities in this arena through acquisitions and partnerships
- Major Contenders would benefit from leveraging next-generation technology across their solution portfolio as clients seek to accelerate the decision-making process
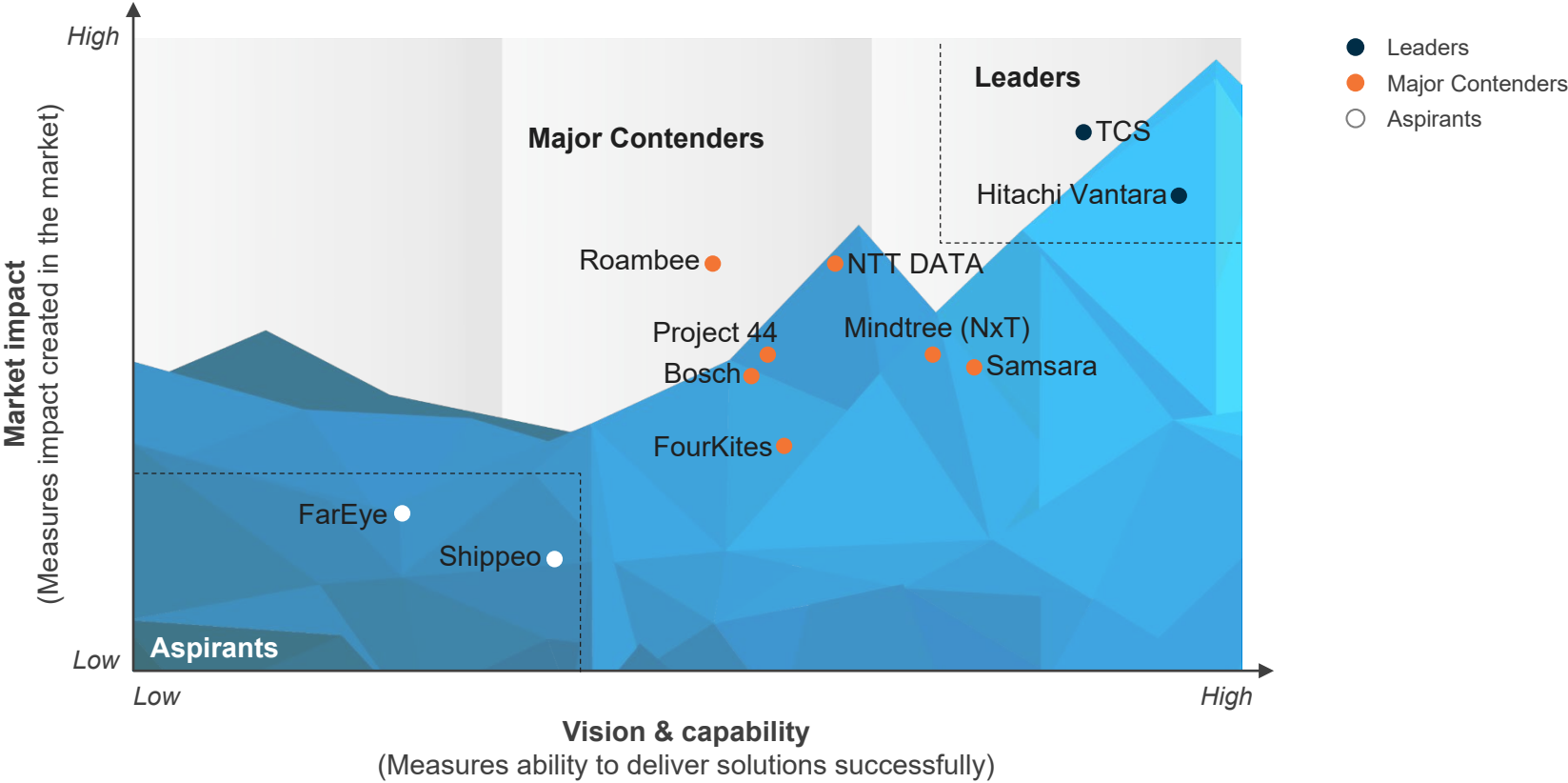
Aspirants:

FarEye and Shippeo

- Aspirants aim to become strong regional supply chain solution providers in their target geographies as is exhibited by their investments in these regions
- Aspirants would benefit from expanding their partnerships to include service partners to aid them in service integration support for their solutions across the enterprise landscape
- They would also need to showcase innovative use cases that go beyond track and trace within supply chain to enhance their market recognition and adoption

Everest Group PEAK Matrix®
Internet of Things (IoT) Supply Chain Solutions PEAK Matrix® Assessment 2022 | TCS Positioned as a Leader

Everest Group Internet of Things (IoT) Supply Chain Solutions PEAK Matrix® Assessment 2022[1]

Legend:
- ● Leaders
- ● Major Contenders
- ○ Aspirants

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

Quadrants: Leaders, Major Contenders, Aspirants

Plotted providers:
- TCS (Leader)
- Hitachi Vantara (Leader)
- Roambee (Major Contender)
- NTT DATA (Major Contender)
- Project 44 (Major Contender)
- Mindtree (NxT) (Major Contender)
- Bosch (Major Contender)
- Samsara (Major Contender)
- FourKites (Major Contender)
- FarEye (Aspirant)
- Shippeo (Aspirant)

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[1]   Assessments for FarEye, FourKites, Project 44, Samsara, and Shippeo exclude vendor inputs on this particular study and are based on Everest Group's estimates and solution provider public disclosures.
Source: Everest Group (2022).

TCS | IoT supply chain solutions profile (page 1 of 4)
Everest Group assessment – Leader

Measure of capability: ◔ Low ● High

Market impact				Vision & capability					
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Technology capability	Services capability	Innovation and investments	Engagement and commercial model	Overall
●	◕	●	◔	◔	●	●	◔	◔	◔

Strengths

- TCS has made significant investments in developing proprietary solutions across the supply chain value chain leveraging next-generation technologies such as AI/ML, edge, and blockchain

- TCS' strong partner ecosystem covering hyperscalers, enterprise platform providers, as well as supply chain specialist platforms is helpful in offering end-to-end solutions to clients

- Clients appreciate the account management capabilities as well as the scalability of solutions in its engagements

Limitations

- Unlike niche players in this field that have invested significantly in IoT for multi-model transportation channels, enterprises may see limited proof points around multi-modal supply chain by TCS

- The majority of TCS' clients are large companies; small and mid-sized clients with smaller volume of transactions may not find its approach very relevant to their needs

- Limited proof points around innovative commercial constructs exhibited by TCS may hinder investments in supply chain digitization for enterprises concerned about RoI
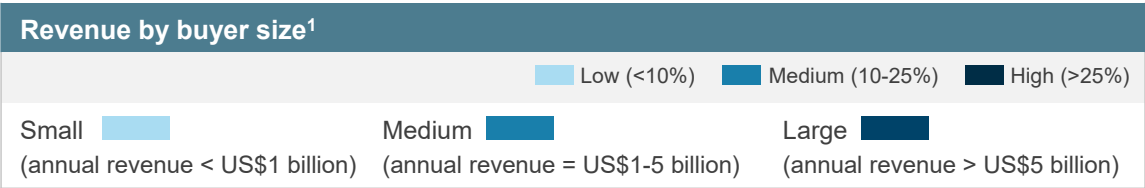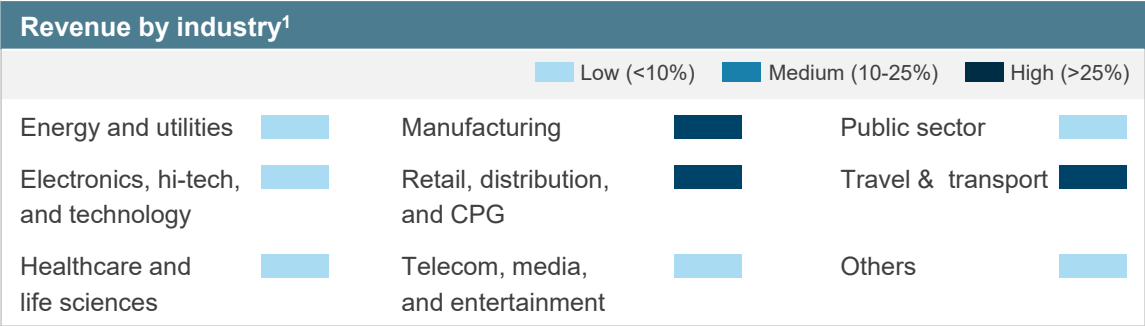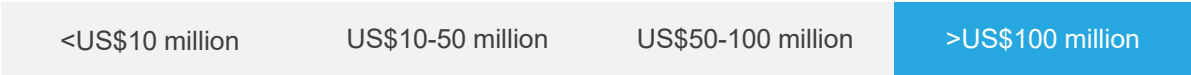
TCS | IoT supply chain solutions profile (page 2 of 4)
Overview

Company mission/vision statement for IoT-enabled supply chain solutions

TCS' vision is to become a strategic growth and transformation partner for global customers in solving their supply chain challenges. The firm aims to leverage its industry-specific supply chain-based products along with services enabled by IoT and other digital technologies to achieve this for clients.

Revenue from IoT supply chain solutions (excluding services)

<US$10 million	US$10-50 million	US$50-100 million	>US$100 million

Revenue by industry[1]

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

Energy and utilities	Manufacturing	Public sector
Electronics, hi-tech, and technology	Retail, distribution, and CPG	Travel & transport
Healthcare and life sciences	Telecom, media, and entertainment	Others

Revenue by buyer size[1]

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

| Small (annual revenue < US$1 billion) | Medium (annual revenue = US$1-5 billion) | Large (annual revenue > US$5 billion) |

Revenue by geography[1]

Low (<10%)   Medium (10-40%)   High (>40%)

| North America | Europe (excluding UK) | South America |
| Middle East & Africa | UK | Asia Pacific |

1   All the revenue components add up to a total of 100%.

TCS | IoT supply chain solutions profile (page 3 of 4)
Case studies

Case study 1	Solution for tracking and tracing shipment for a postal company

Client: Leading European postal and logistics company

Business challenge

The customer was facing challenges in services quality due to theft of parcel boxes or parcel items and sought to implement solutions for monitoring the flow of these parcels, while ensuring the items were transported and delivered within the desired time and in good condition.

Solution

TCS implemented the TCS Digifleet™-based parcel tracking solution. The firm also developed a solution to track and trace shipments across the entire supply chain. Telemetry information from trackers installed in parcels, such as location, temperature, and geo route, was captured via the TCS application, and ingested, stored, and processed in the platform. Centralized dashboard to view the real-time updates from the parcel flow and stores and alerts based on delivery ETA, route deviation, and geofencing helped the client gain real-time visibility on its shipments and orders.

Impact

With end-to-end tracking of orders, the firm was able to reduce claim for lost shipments by almost 90% and improve customer satisfaction.

Case study 2	Solution for improving resource planning for a building material manufacturing client

Client: Building material manufacturing company

Business challenge

The customer was incurring high logistics execution costs and had challenges with low on-time delivery due to stringent customer delivery windows and the high demand for resources required for transportation as well as loading/unloading.

Solution

TCS implemented its TCS Logistic Optimizer solution, leveraging advanced analytics to model and simulate the network with all its constraints. This solution consolidated data from various systems related to logistics operations, such as ERP, CRM, and logistics management, and enabled the customer to create simulations of different scenarios to obtain the one with the best optimization, while satisfying all constraints.

Impact

The client experienced significant impact across various parameters:
- 15% improvement in on-time delivery
- 15% decrease in logistics execution cost
- 25% increase in resource/fleet utilization
- 20% reduction in resources

TCS | IoT supply chain solutions profile (page 4 of 4)
Solutions, partnerships, and investments

Proprietary solutions (representative list)	
Solution name	**Details**
TCS DigiFleet™	IoT-enabled suite that provides real-time actionable insights to decision makers and provides a unified view of movements across multi-modal transportation handled by business-owned fleet, third-party logistics provider fleets. The suite is powered by IoT and AI/ML engine and provides contextual and situational insights on fleet and supply chain operations by ingesting real-time data from a heterogeneous ecosystem. The hyperscaler suite offers modular industry-specific features on SaaS model to accelerate digitalization initiatives for fleet and supply chain.
TCS Logistics Optimizer	An AI-/ML-based IoT solution that brings real-time visibility and adds predictability to logistics planning. The solution aims to make the supply chain agile and insight-driven to address demand fluctuations, support new business models, and drive efficiencies across the value chain.
TCS DynaChain	Platform that aims to offer plant managers more predictability, visibility, and control of factory operations by establishing connected assets, operations, workforce, and supply chain. The platform offers integrations with AR/VR technologies.
TCS INVVIOn	An Azure cloud-based solution that leverages technologies such as IoT, AI, ML, and deep learning to make supply chains more responsive. The solution's four core modules include: enterprise visibility, intelligent procurement, intelligent replenishments, and smart fulfilments.

| Partnerships (representative list)	
Partner	**Details**
Microsoft	Microsoft Gold-certified partner; TCS' Dynamics 365 offerings include Connected Consumer & Operations, NextGen Connected Field Services, & Resilient Supply Chain.
HERE Technologies	Partnership with HERE Technologies to enable location-based innovation for TCS' IoT-enabled fleet management solution.
BlueYonder, Manhattan Associates, o9, Kinaxis, etc.	Partnership with specialist supply chain platform providers in the space of Warehouse Management Systems (WMS), Transportation Management Systems (TMS), & control tower.

Other investments (representative list)	
Investment name	**Details**
Talent development initiatives	Trained over 1,000 resources in areas such as edge computing, IoT-related track and trace services, and IoT platforms.
Innovation labs	Developed Edge CoE to address client needs around sensors and devices, controllers, and message gateways. The Edge CoE targets several verticals, including industrial automation, energy and utilities, healthcare, high-tech, and smart cities.

Appendix

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

**Everest Group PEAK Matrix**
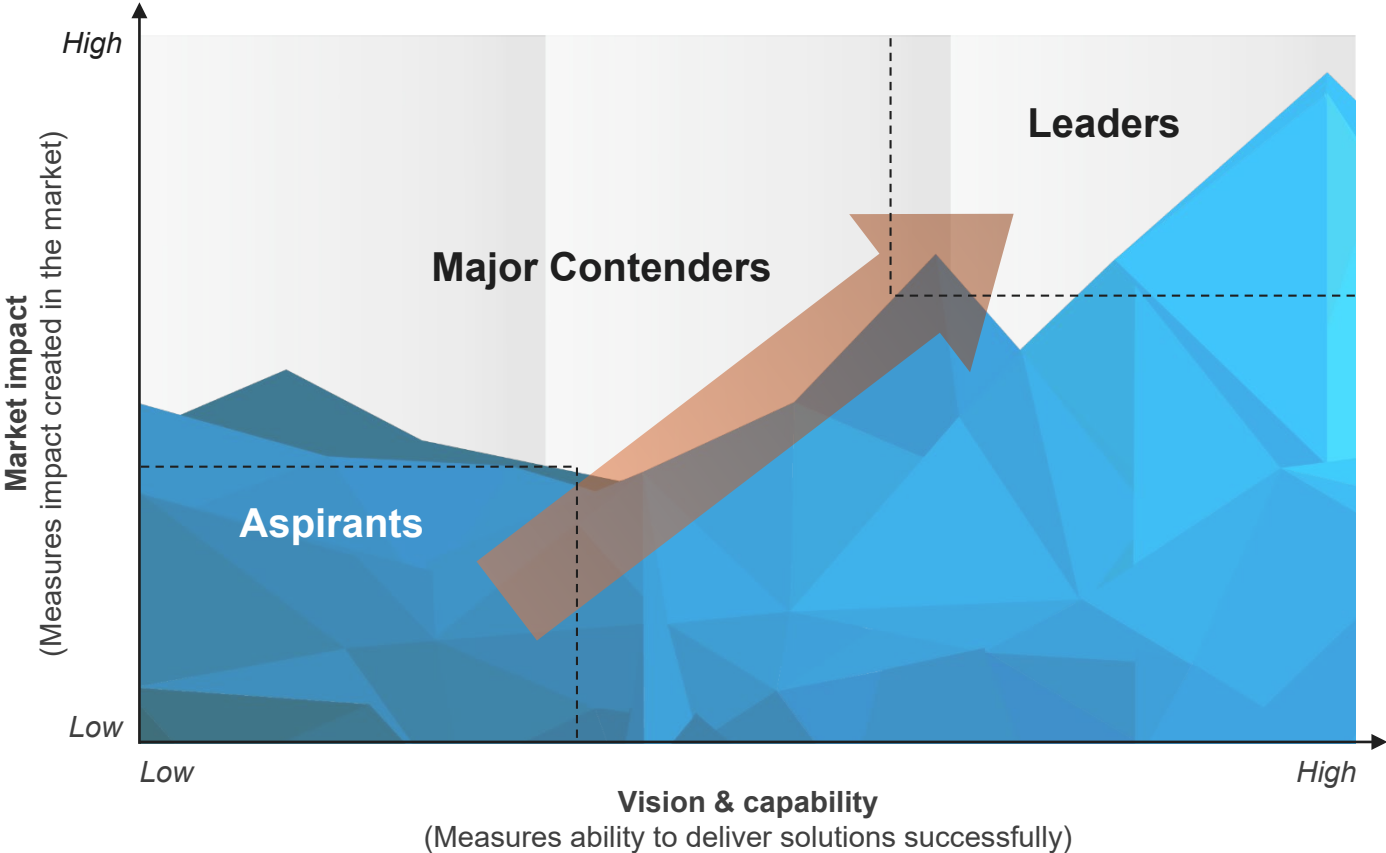
Solutions PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

Market adoption

Size and growth of deployments across the solution portfolio

Portfolio mix

Solution footprint across geographies, industries, and buyer size segments

Value delivered

Value delivered to the client based on customer feedback and other measures

Market impact

Leaders

Major Contenders

Aspirants
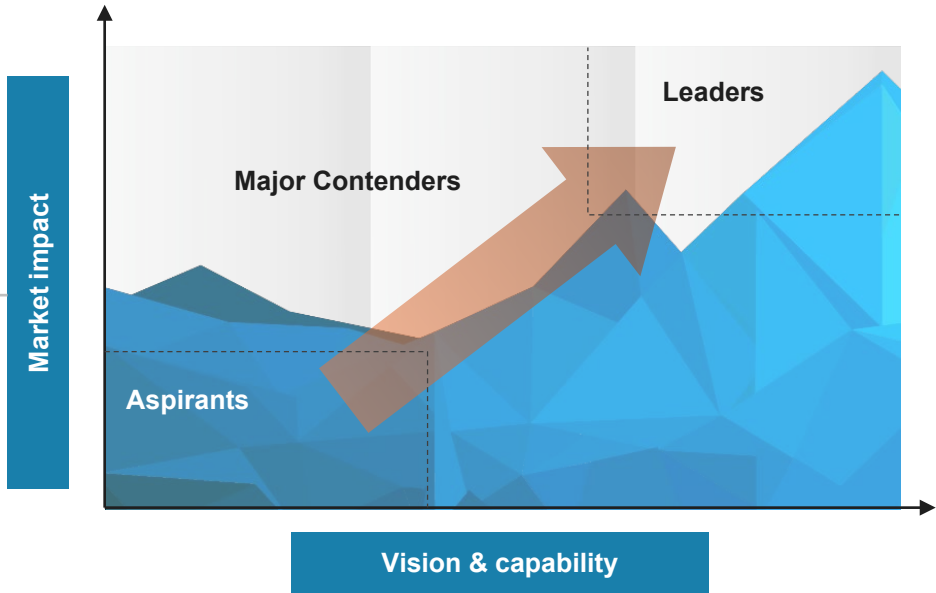
Vision & capability

Measures ability to deliver solutions successfully. This is captured through five subdimensions

Vision and strategy	Technology capability	Services capability	Innovation and investments	Engagement and commercial model
Vision for the client and itself; future roadmap and strategy	Technical sophistication and breadth/depth across the technology suite	Effectiveness and breadth/depth of services portfolios across the services suite	Innovation and investment in the solution suite	Progressiveness, effectiveness, and flexibility of engagement and commercial models

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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