

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

Focus on Hitachi Vantara February 2022



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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:





Solution providers



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 realtime 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 | Hitachi Vantara Positioned as a Leader

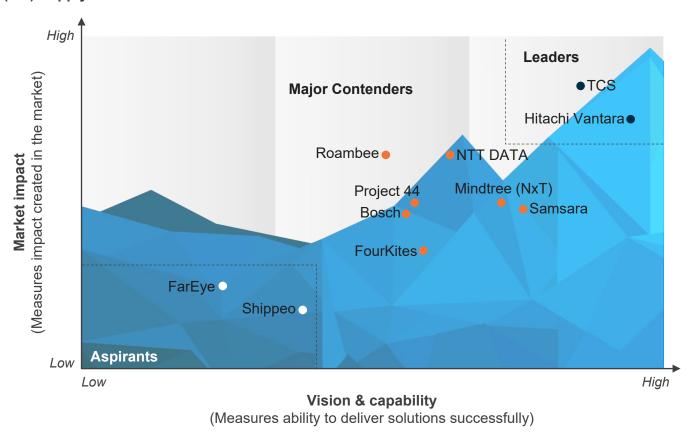


Leaders

Aspirants

Major Contenders

Everest Group Internet of Things (IoT) Supply Chain Solutions PEAK Matrix® Assessment 20221



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)



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Hitachi Vantara | IoT supply chain solutions profile (page 1 of 4)

Everest Group assessment – Leader

Measure of capability: Low







Market impact				Vision & capability					
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Technology capability	Services capability		Engagement and commercial model	Overall
			•	•		•			

Strengths

- Through its Lumada offering, Hitachi Vantara has invested in a robust set of solutions covering the entire supply chain value chain leveraging next-generation capabilities, such as edge computing, to provide real-time insights to clients
- Hitachi Vantara exhibits strong investments through R&D centers, patents, and acquisitions to strengthen its capabilities in the IoT supply chain arena, showcasing a strong future roadmap in this arena
- Clients appreciate the firm's expertise in the arena of manufacturing and industrial sectors as well as the knowledge of IT-OT skills as a key differentiator in partnering with them

Limitations

- Clients seek better product training and ease of use of Hitachi Vantara's solutions as they aim to adopt its supply chain solutions across their enterprise landscape
- Enterprises in consumer-facing verticals such as retail/CPG and healthcare & life sciences may see limited proof points by Hitachi Vantara in the space of IoT-enabled supply chain
- Clients seek agile project management from the company to reduce the implementation timeline

Hitachi Vantara | IoT supply chain solutions profile (page 2 of 4)

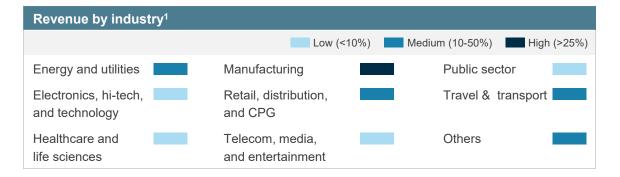
Overview

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

Hitachi Vantara aims to position its Lumada suite of solutions as the platform of choice for all asset-intensive and mission-critical industries. The firm aimed to leverage this solution to aid customers in bridging the domains of IT,OT, and business operations while offering a flexible approach to support on-premises, edge, hybrid, or cloud deployments.

Revenue from IoT supply chain solutions (excluding services)

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







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



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Hitachi Vantara | IoT supply chain solutions profile (page 3 of 4)

Case studies

Case study 1

IoT solution for tracking and monitoring mining equipment

Client: First Quantum Minerals

Business challenge

First Quantum Minerals was facing challenges in tracking and monitoring its mining equipment, like such as excavators, and was looking to leverage IoT solutions that could aid them in this.

Solution

As part of this engagement, Hitachi provided First Quantum Minerals with fleet management, dispatch automation, and predictive maintenance capabilities on the cloud as well as edge. IoT-based connected assets included excavators, RDTs, and auxiliary equipment. The solution also provided asset health monitoring and, in conjunction with third-party partners, predictive analytics, and multi-layered AI with digital twinning aimed at reducing the total cost of maintenance.

Impact

The fleet management solution helped in monitoring the behavior of over 80 equipment units in operation.

Case study 2

IoT solution for asset management and predictive maintenance

Client: Deutsche Bahn

Business challenge

Deutsche Bahn, a German railway company was facing challenges in reducing the frequency of the train wheelset replacements.

Solution

A Machine Learning (ML) algorithm developed using historical data from parameters database aided in computing the frequency of wheelset parameter change. The firm implemented distance-based forecasting, allowing operators to assess risk based on actual utilization.

Impact

This led to cost-optimal scheduling and scoping of wheelset maintenance for the entire fleet along with early detection of critical conditions to avoid service interruptions or regulatory penalties from safety violations.



Hitachi Vantara | IoT supply chain solutions profile (page 4 of 4)

Solutions, partnerships, and investments

Proprietary solutions (representative list)							
Solution name	Details						
Lumada Asset Performance Management	A SaaS solution that runs on the Lumada IIoT platform & aids in asset management & inventory management for supply chain initiatives.						
Lumada Manufacturing Insights (MFI)	It is a suite of individual & integrable solutions that runs on the IIoT platform and aids in optimizing production operations with special focus on machines, quality, and procesusing the firm's 4M (Man, Machine, Material, and Methods) approach.						
Lumada Enterprise Asset Management (EAM)	It provides recommendations across asset management and maintenance, scheduling and execution, work planning, supply chain and material management, multi-entity find management, and people management.						
Lumada Edge Intelligence	Lumada Edge Intelligence provides actionable real-time insights at remote locations and enterprise-class data management, from edge-to-multicloud.						
Lumada DataOps	It aims to operationalizes data management with automation and collaboration and aid enterprises in building their own DataOps practice						
Partnerships (representative list)							
Partner	Details						
Amazon Web Services (AWS)	Partnership aimed at offering Lumada industrial solutions on the AWS cloud platform and co-innovate to develop new IoT applications						
Microsoft	Partnership with Microsoft for offering Lumada Manufacturing Insights on the Microsoft Azure marketplace						
Ericsson, Cisco, and Verizon	Partnership with leading telecom providers to drive quicker access to data for real-time action						
Other investments (representative list)							
Investment name	Details						
Patents	Developed IP in the areas of prognostics & stochastic modeling for asset performance maintenance & repair recommendations, including calculating remaining useful life						
R&D	Established CoEs, R&D centers, and research labs globally – with software development in Vancouver, Brisbane, Krakow, Kuala Lumpur, Detroit, Santa Clara, and more apart from Lumada Innovation Centers in Tokyo and Bangkok; Aim to invest USD 10 billion In R&D for sustainability related digital innovation in the next 3 years						
Acquisitions	In 2021, acquired Io-Tahoe, a subsidiary of the UK energy company Centrica, to bring together data engineering, science and analytics on an open, unified platform						



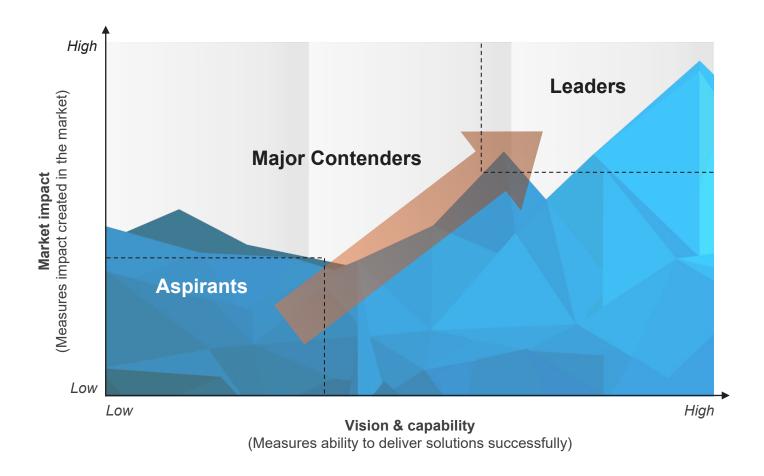
Appendix



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



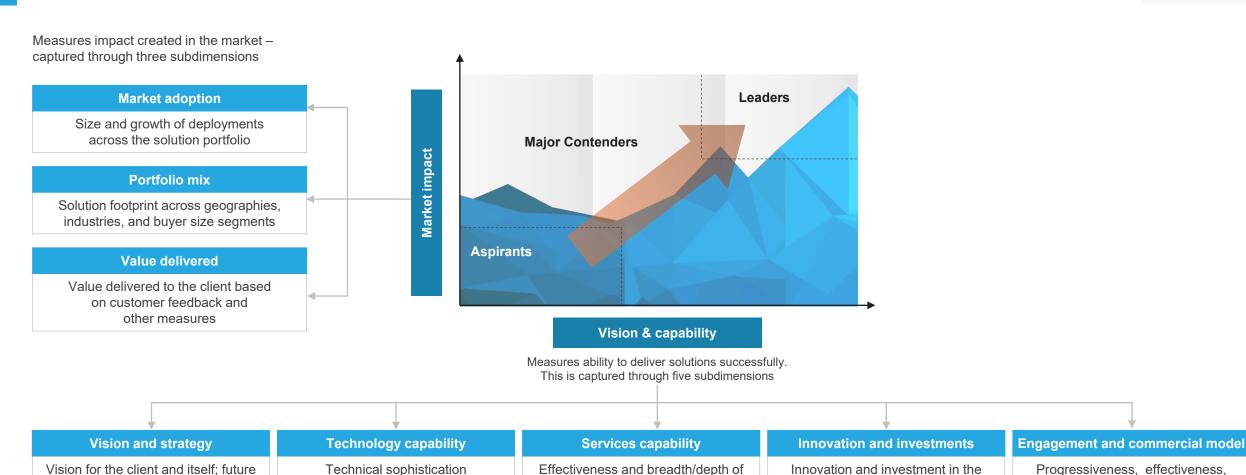
Everest Group PEAK Matrix





Solutions PEAK Matrix® evaluation dimensions





services portfolios across the

services suite

roadmap and strategy

and breadth/depth across the

technology suite

and flexibility of engagement and

commercial models

solution suite

FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?

Everest Group's PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging 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 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 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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