Everest Group PEAK Matrix™ for IoT Service Providers

Focus on NTT DATA
December 2017
Introduction and scope

Everest Group recently released its report titled “IoT Services PEAK Matrix™ Assessment and Market Trends 2017: Have You Taken the Plunge in IoT Yet?” This report analyzes the changing dynamics of the IoT landscape and assesses service providers across several key dimensions.

As a part of this report, Everest Group updated its classification of 18 service providers on the Everest Group PEAK Matrix for IoT into Leaders, Major Contenders, and Aspirants. The PEAK Matrix™ is a framework that provides an objective, data-driven, and comparative assessment of IoT service providers based on their absolute market success and delivery capability. Everest Group also identified five service providers as the “2017 IoT Market Star Performers” based on the strongest forward movement demonstrated on the PEAK Matrix™ year-on-year.

Based on the analysis, NTT DATA emerged as a Leader and Star Performer. This document focuses on NTT DATA’s IoT experience and capabilities and includes:

- NTT DATA’s position on the IoT PEAK Matrix
- NTT DATA’s year-on-year movement on the IoT PEAK Matrix
- Detailed IoT services profile of NTT DATA

 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.
**Everest Group PEAK Matrix™**

**IoT Services – Services PEAK Matrix Assessment and Market Trends 2017: Have You Taken the Plunge in IoT Yet?**

Everest Group IoT Services PEAK Matrix™ Assessment and Market Trends 2017: Have You Taken the Plunge in IoT Yet?

**Market impact**
(Market adoption, portfolio mix, and value delivered)

**Vision and capability**
(Vision, scope, innovation and investments, and delivery footprint)

---

**Major Contenders**
- Genpact
- Infosys
- Cognizant
- LTI
- Tech Mahindra
- TCS
- Wipro
- DXC Technology
- NTT DATA
- HCL Technologies
- Atos
- Accenture
- IBM
- Virtusa
- Luxoft
- Prodapt
- Syntel
- Happiest Minds
- Virtusa

**Leaders**
- IBM
- Accenture
- Atos
- NTT DATA
- HCL Technologies

**Aspirants**
- TCS
- LTI
- HCL Technologies

**Star Performers**
- IBM

---

**Note:** Assessment for TCS includes partial inputs from the service provider, and is based on Everest Group's estimates that leverages its proprietary data assets, service provider public disclosures, and interaction with buyers.

Assessment for Luxoft excludes service provider inputs on this particular study, and is based on Everest Group’s estimates that leverage its proprietary Transaction Intelligence (TI) database, ongoing coverage of the 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.

**Source:** Everest Group (2017)

---

Copyright © 2017, Everest Global, Inc.
EGR-2017-4-E-2450
Overview

**Strengths**
- NTT DATA has supported its clients in identifying and delivering large scale digital transformation opportunities with IoT
- Investments such as the acquisition of Dell services and Everis has enhanced its ability to offer end-to-end IoT solutions comprising of cloud, infrastructure, and OT capabilities

**Areas of improvement**
- NTT DATA needs to invest in developing vertical-focused IP and proactively leveraging those to create value for clients
- NTT DATA needs to enhance its managed services offerings and engage in a risk sharing model with customers to convert more POCs to production projects

**Overview of the IoT services practice:** NTT DATA has regional business divisions focused on IoT and professionals skilled in electronic circuit design, manufacturing supervision, mobility, analytics, cloud, social, and AI distributed across the globe. In addition, it has a Global One initiative and a CoE across the regional divisions.

**IoT projects scope**
- Solution architecture
- Cloud enablement
- System integration

- Devices & sensor engineering
- Application services
- Managed services

- Gateway & network implementation
- Analytics & data management

**IoT services by function**
- Consulting
- System integration

- Design/ implementation
- Maintenance/ management

**IoT services revenue by buyer size**
- Small (annual revenue < US$1 billion)
- Medium (annual revenue = US$1-5 billion)
- Large (annual revenue = US$5-10 billion)
- Mega (annual revenue > US$10 billion)

**IoT services top five industries**
- Manufacturing
- Energy & utilities
- Public sector

- Electronics, hi-tech, and technology

**IoT services revenue by geography**
- North America
- UK
- South America

- Europe
- APAC
- MEA

Source: Everest Group (2017)
**Vision:** NTT DATA believes in providing IoT services and solutions that can result in smart businesses, smarter users, and an overall smart society (i.e. smart cities, smart banking, smart agriculture, smart manufacturing, smart transportation, smart energy, smart infrastructure, and smart asset management).

## Case studies and solutions

<table>
<thead>
<tr>
<th>Case study 1</th>
<th>Case study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solution for pollutant detection for a water distribution company in Europe</strong></td>
<td><strong>Detecting machine anomalies from sound for Japanese manufacturing company</strong></td>
</tr>
<tr>
<td><strong>Business challenge</strong></td>
<td><strong>Business challenge</strong></td>
</tr>
<tr>
<td>Customer needed real time detection of pollutants in water distribution network and decision support on pollution events.</td>
<td>Issue identification in manufacturing process based on equipment sound was done manually and lacked efficiency and quality. Customer needed a remote predictive maintenance solution.</td>
</tr>
<tr>
<td><strong>Solution and impact</strong></td>
<td><strong>Solution and impact</strong></td>
</tr>
<tr>
<td>NTT DATA developed an in house solution for water quality control with connectors for MODBUS water quality probes, server side intelligence and enabled EPANET integration. The solution gave recommendations for action post pollutant detection and pollution scenario modelization.</td>
<td>NTT DATA developed &quot;Monome&quot; that automatically detects anomalies of machines. The solution is based on the active listening of the sound by machine with simple microphones and its processing through complex machine learning device that enabled swift action over the machinery.</td>
</tr>
</tbody>
</table>

### IoT proprietary solutions (representative list)

<table>
<thead>
<tr>
<th>Solution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANYSENSE</td>
<td>Cloud based network infrastructure solution for rapid deployment of IoT solutions such as road monitoring system, snow removal system, magnitude monitoring system, road ice monitoring system, and flood monitoring system</td>
</tr>
<tr>
<td>IoT framework</td>
<td>Framework for connecting heterogeneous devices to storage and processing facilities to enable the integration of IoT solutions</td>
</tr>
<tr>
<td>everisMoriarty</td>
<td>everisMoriarty R3 offers an enterprise platform for the development and deployment of AI applications</td>
</tr>
<tr>
<td>M2M Network solution</td>
<td>A network solution for collecting information from devices (power sensors, vending machines, security cameras, etc.) and implemented with communication modules of mobile network operators</td>
</tr>
<tr>
<td>Automated analysis framework</td>
<td>Framework for predictive analytics using AI technology for IoT services</td>
</tr>
<tr>
<td>BEACON NAVI</td>
<td>High precision device locator using low-power consumption wireless communication technology</td>
</tr>
<tr>
<td>Smart Plug for Blockchain</td>
<td>Development of Blockchain software and hardware solution for IoT-Blockchain integration</td>
</tr>
</tbody>
</table>

Source: Everest Group (2017)
## Investments and partnerships

### IoT investments (representative list)

<table>
<thead>
<tr>
<th>Investment theme</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and development</td>
<td>As part of NTT Group, NTT DATA invests about US$1.8 billion in R&amp;D annually&lt;br&gt;Also includes co-development with universities, industry consortiums, and startup accelerators</td>
</tr>
<tr>
<td>Acquisitions</td>
<td><strong>Dell Services</strong>: IT services provider offering infrastructure services, cloud services, application services, and BPO services across industries&lt;br&gt;<strong>Charlotte’s Carlisle &amp; Gallagher Consulting Group</strong>: An FSI focused consulting firm with 1000+ employees&lt;br&gt;<strong>InteHealth</strong>: Agreement will allow NTT DATA to continue offering leading and comprehensive solutions for establishing a seamless connection to share information among key stakeholders</td>
</tr>
<tr>
<td>IoT labs and innovation centers</td>
<td><strong>BeSTA FinTech Lab</strong>: An innovative lab to help clients of regional banks connect with startups and for joint solution creation leveraging next generation technology including blockchain&lt;br&gt;<strong>Collaboration center</strong> in Texas, the United States: To offer an immersive, interactive, and inspirational space to explore new experiences and solve client challenges&lt;br&gt;<strong>Innovation Lab</strong> in Munich: To demonstrate digital solutions and enable a co-working space with the client</td>
</tr>
<tr>
<td>Talent</td>
<td>Investment in training on next generation technologies and solutions including Industrial IoT solutions, virtual/augmented/mixed reality devices, and multi-vendor cloud solutions providing PaaS IoT services</td>
</tr>
</tbody>
</table>

### IoT partnerships (representative list)

<table>
<thead>
<tr>
<th>Partner name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOTeam</td>
<td>Partnership for provisioning of technology to enable integration of solutions for NTT DATA customers</td>
</tr>
<tr>
<td>Universidad Carlos III de Madrid</td>
<td>Partnership for joint R&amp;D investments to develop new products and technologies</td>
</tr>
<tr>
<td>SAP</td>
<td>Software manufacturer partners for collaboration in order to enhance and integrate software products</td>
</tr>
<tr>
<td>Additionally, NTT DATA has partnerships with other technology players and startups such as Telit, Oracle, GiPStech, AC, and Stromer; academic institutes such as MIT, AIOTI, tecnalia, Universita Della Calabria, and i2cat.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Everest Group (2017)
Appendix
## Everest Group’s definition of scope of IoT services

### NOT EXHAUSTIVE

<table>
<thead>
<tr>
<th>IoT services</th>
<th>Applications</th>
<th>Analytics and data management</th>
<th>Gateways and network</th>
<th>Infrastructure and security</th>
<th>Device and sensor engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Application development, API development &amp; publishing, user interface design, customer experience management, application distribution, and interoperability</td>
<td>Master data management, big data solution integration, data storage, cleaning &amp; mining, event processing, predictive analytics, visualization, reporting, and dashboards</td>
<td>Device connectivity, device registration, cloud connectivity, device management, and performance management</td>
<td>Cloud platform development, device permissions, DR/back-up, authentication, data encryption, and vulnerability assurance</td>
<td>Firmware development/upgrade, chip design/selection, sensor/device design, CAD/CAM, prototyping and deployment, configuration, provisioning, and asset management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design/implementation</th>
<th>Consulting</th>
<th>Maintenance/management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution designing and implementation, system integration, and technology deployment</td>
<td>Strategy formulation, use case development, roadmap development, technology assessment, and IoT architecture</td>
<td>Ongoing management, monitoring, support, and upgrades/updates</td>
</tr>
</tbody>
</table>
Everest Group PEAK Matrix™ is a proprietary framework for assessment of market impact and vision & capability

Everest Group PEAK Matrix

Source: Everest Group (2017)
Services PEAK Matrix™ evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- **Market adoption**
  - No. of clients, revenue base, and YOY growth, deal value/volume

- **Portfolio mix**
  - Diversity of client/revenue base across industries, geos, enterprise size class

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

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 sub-segments / 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

Source: Everest Group (2017)
Additionally, Everest Group confers the “Star Performers” title on the providers that demonstrate the strongest forward movement over time on the PEAK Matrix™

Methodology
Everest Group selects Star Performers based on the relative YOY movement of each service provider on the PEAK Matrix

In order to assess advancements on market success, we evaluate the performance of each service provider on the PEAK Matrix across a number of parameters including:
- Yearly revenue growth
- Number of new clients added
- Number of contract extensions
- Value of new contract signings

In order to assess advancements on capability, we evaluate the performance of each service provider on the PEAK Matrix across a number of parameters including:
- Annual growth in scale
- Increase in scope of services
- Expansion of delivery footprint
- Technology- / domain-specific investments

The top quartile performers on each of the specified parameters are identified and the “Star Performer” rating is awarded to the service providers with:
- The maximum number of top quartile performances across all of the above parameters
- At least one area of top quartile performance in both market success and capability advancement

The “Star Performers” title relates to YOY performance for a given service provider and does not reflect the overall market leadership position. Those identified as “Star Performers” may include “Leaders,” “Major Contenders,” or “Aspirants.”

Service providers such as Arvato, NTT DATA, SPI CRM, STARTEK, and VXI are not accounted for in the Star Performer analysis due to their non-participation in the PEAK Matrix™ analysis in 2016.
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.

Does PEAK Matrix assessment incorporate “customer satisfaction” as an evaluation criteria/metric?
Everest Group does not have “customer satisfaction” as a separate metric in its PEAK evaluation framework. This is primarily because it is challenging to obtain interviews with a meaningful number of reference buyers for each service provider. Also, “customer satisfaction” is a highly subjective and opinion driven metric and there is no foolproof methodology to normalize this input. That said, we validate our PEAK results through buyer interaction and capture some consistent “spikes” or “lags” in performance through metrics such as “renewal rate”, etc.
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 marketplace, 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 to leverage their PEAK Matrix positioning, or “Star Performer” status?

- Providers can use their PEAK positioning or “star performer” 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.

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.
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 empower 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.