

Everest Group PEAK Matrix[™] for Enterprise Blockchain Services 2020

Focus on NTT DATA December 2019



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EGR-2019-33-E-3472

Introduction and scope

Everest Group recently released its report titled "<u>Enterprise Blockchain Services PEAK Matrix™ Assessment 2020: Getting the Economics of</u> <u>Consensus Right</u>" This report analyzes the changing dynamics of the enterprise blockchain services landscape and assesses service providers across several key dimensions.

As a part of this report, Everest Group updated its classification of 30 service providers on the Everest Group PEAK Matrix[™] for blockchain services into Leaders, Major Contenders, and Aspirants. The PEAK Matrix is a framework that provides an objective, data-driven, and comparative assessment of blockchain service providers based on their absolute market success and delivery capability. Everest Group also identified eight service providers as the "2019 Enterprise Blockchain Services 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** blockchain services experience and capabilities and includes:

- NTT DATA's position on the enterprise blockchain services PEAK Matrix
- NTT DATA's year-on-year movement on the enterprise blockchain services PEAK Matrix
- Detailed enterprise blockchain 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.

Source: Everest Group (2019)



Background of the research

Background of the research

- Blockchain technology is signaling enterprise readiness and moving beyond the hype phase, where it had captured the attention of
 visionaries, technologists, governments, and enterprises alike. Blockchain has witnessed widespread adoption across industries, with
 projects moving from Proof of Concepts (POCs) to deployment stages
- Enterprise blockchain technology has presented an opportunity for service providers to reinvent services delivery model. Given the nature of technology, it demands an ecosystem play, and thus the role of service providers as orchestrators of business outcomes enabled by digital levers (including blockchain) becomes more prominent
- In this research, we present an assessment of 30 leading enterprise blockchain service providers plotted on the proprietary Everest Group PEAK Matrix, along with their detailed profiles. Each service provider profile comprises details of service capabilities, scale of operations, and domain investments
- The assessment is based on Everest Group's annual RFI process for the calendar year 2019, direct interaction with leading blockchain service providers, client reference checks, and an analysis of the enterprise blockchain services market

Scope of this report

- Services: Enterprise blockchain services
- Geography: Global
- Service providers: 30 leading enterprise blockchain service providers

This report includes the profiles of the following 30 service providers on the enterprise blockchain services PEAK Matrix[™]:

- Leaders: Accenture, Cognizant, HCL Technologies, IBM, Infosys, NTT DATA, TCS, and Wipro
- Major Contenders: Atos, Capgemini, Deloitte, Deqode, DXC Technology, EY, Fujitsu, GFT, KPMG, LTI, Mphasis, PwC, Synechron, Tech Mahindra, and Virtusa
- Aspirants: 3i-Infotech, Birlasoft, GAVS Technology, Innominds, NIIT Technologies, UST Global, and Zensar
- Star performers: Atos, Cognizant, DXC Technology, GFT, NTT Data, TCS, Tech Mahindra, and Wipro



Leaders:

Accenture, Cognizant, HCL Technologies, IBM, Infosys, NTT DATA, TCS, and Wipro

- Leaders have accelerated the enterprise blockchain adoption journey by positioning themselves beyond the traditional realm of IT and consulting system integrators to build, run, manage, govern, and monetize blockchain networks. There is varying degree of maturity across the Leaders in this area, but all have expanded their vision and strategy to become blockchain network/platform operators
- Leaders are investing in building solutions to ease setting up of blockchain network, enable blockchain interoperability, and accelerate time to value and production readiness
- Leaders are active contributors to open source blockchain solutions and are working closely with the blockchain technology ecosystem to address industry-wide adoption challenges. They are building tools and solutions that are workarounds for the current technology limitations, thus driving innovation in their engagements

Major Contenders:

Atos, Capgemini, Deloitte, Deqode, DXC Technology, EY, Fujitsu, GFT, KPMG, LTI, Mphasis, PwC, Synechron, Tech Mahindra, and Virtusa

- Major Contenders have accelerated their investments in technology partnerships and collaboration with the broader blockchain ecosystem. They stand out for their investments in building accelerators or point solutions for specific blockchain use cases
- Major Contenders consist of a range of service providers with varying focus from certain industries to certain geographies. They have been quick in building solutions around identified use cases
- Major Contenders see blockchain as a technology to drive cost optimization and process efficiency and are building solutions around it
- Consulting firms have been instrumental in market education and outlining blockchain strategy and roadmap. At the same time, niche engineering talent-focused firms have built talent and internal delivery capabilities to make this roadmap a reality for their enterprise clients

Aspirants:

3i-Infotech, Birlasoft, GAVS Technology, Innominds, NIIT Technologies, UST Global, and Zensar

- Aspirants have budding blockchain services practices and are investing in scaling their talent pool to manage the clients' demand for building minimum viable blockchain solutions as well as supporting enterprises via staff augmentation for product engineering talent
- They are investing in building a GTM strategy for blockchain technologies and creating dedicated leadership and thought assets

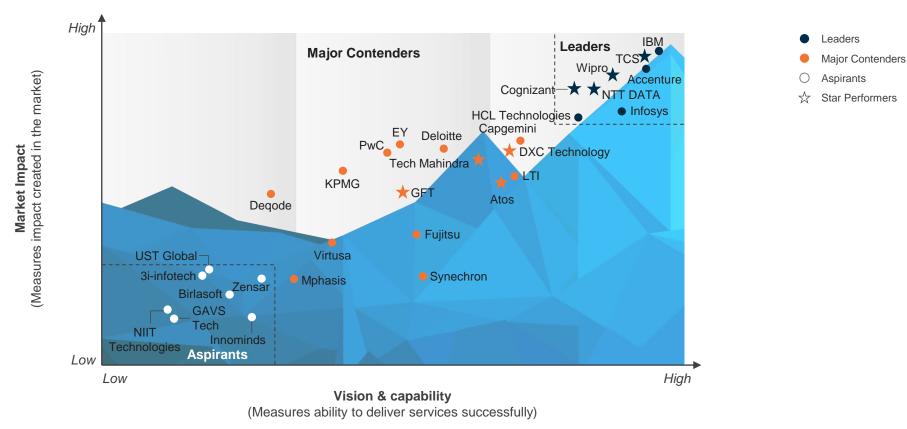


Everest Group PEAK Matrix[™]

Enterprise Blockchain Services PEAK Matrix[™] Assessment 2020



Everest Group Enterprise Blockchain Services PEAK Matrix™ Assessment 2020



Note: Assessment for Deloitte, EY, Fujitsu, KPMG, Innominds, LTI, NIIT Technologies, Virtusa, and PwC excludes service provider inputs, and is based on Everest Group's proprietary database, service provider public disclosures, and Everest Group's interactions with blockchain clients. For these companies, Everest Group's data for assessment may be less complete

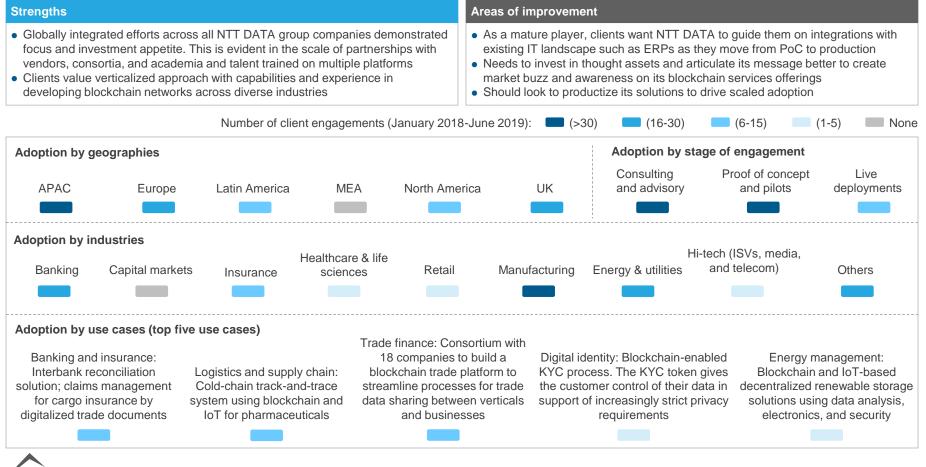
Source: Everest Group (2019)



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NTT DATA | Blockchain services (page 1 of 4) Overview

Vision for blockchain practice: Focusing not just on technology, but on business processes, a new mindset while understanding the customer needs to provide end-toend support around Blockchain for NTT DATA's clients across countries. Identifying the different typologies of business models and digital ecosystems, accelerating the PoC development process, leveraging SKU Chain investment, and building out BaaS capabilities. Docking blockchain development cloud with NTT DATA's broader cloud computing offerings and building interoperability capabilities that enable client solutions to communicate with other Blockchain platforms.



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NTT DATA | Blockchain services (page 2 of 4) Case study, thought leadership, and innovation labs

Case study 1			Case study 2	
Automotive industry – automotive spares distribution		UK tier-1 bank cross border payments solution		
Business challenge	Reconciliation with multiple logistics providers across multiple countries, importers, and dealer networks. Shipment traceability across a multitude of logistics service providers is manual and cumbersome, cutting across all organizations including dealers and	Business challenge	Challenges in customer experience and on operational level such as complicated procedure for international remittance, excessive paperwork involved, lengthy and time-taking processes, and lack of real-time settlement	
Solution and impact	importers, resulting in inadequate response to the end customer Track and verify automotive parts and vehicle provenance. It streamlined the supply chain and business processes. It has achieved benefits such as transparency, instant order tracking, automation of manual reports, accurate reporting, and improved customer experience	Solution and impact	Developed an international money transfer platform using Ripple, enabling near real-time payment and settlement of funds. Through this solution, the system gained trust, provided seamless customer experience, and enabled real-time settlement of funds. The solution reached 14 million potential retail customers	

Thought leadership			
Website link	Description		
https://us.nttdata.com/en/digital/blockchain-services	Blockchain services include advisory and strategy, implementation, and integration offerings		
https://www.hyperledger.org/projects/quilt	A founding member of Hyperledger project and contributed Hyperledger Quilt		
http://www.nttdata.com/jp/ja/insights/foresight/sp/index.html	NTT DATA Technology Foresight continues to investigate advanced technologies and social trends		

Blockchain innovation labs / CoEs				
Location	Description			
Online blockchain CoE	Established a platform to globalize its local (and complementary) blockchain capabilities through region-led CoEs that collaborate via global teams. CoEs in 24 countries and 300 members – the United States, India, Spain, Germany, the United Kingdom, Italy, Singapore, and Japan			
Japan / Spain / Italy / the United States / India	Conducts demos globally to explain blockchain in a tangible and perceptible way. The demos explain the overall architecture, deployment, configuration, mining, asset transfer, and smart contract execution			



NTT DATA | Blockchain services (page 3 of 4) Investments

NOT EXHAUSTIVE

Blockchain investments (representative list)				
Investment theme	Details			
Blockchain accelerators/ solutions	 iQuattro: Supply chain platform to enable collaborative commerce beyond enterprises using Skuchain's IP Blockchain One-Stop Environment (BCOSE): Is a service framework intended to provide quick and rapid POC, and it consists of an application marketplace, development utilities, and pre-built platforms for the major Blockchain architectures Reference architecture: The architecture design for production use from the viewpoint of operation, monitoring, and scalability Blocktrace: Traceability solution of Blockchain implementation of supply chain objects that facilitate tracing with three operational components – GS1-standard communications, EPCIS IoT information intake, and blockchain data management ID management: Enables users to manage their identity autonomously and obtain sovereignty. An onboarding solution with tokenization functionality that ensures easy transfer of identity using DLTs 			
Blockchain-as-a- Service (BaaS) technology vendor partnerships	 Oracle: NTT DATA-endorsed Oracle Blockchain cloud solution Also has partnerships with Microsoft, Amazon, and Alibaba cloud, related to blockchain services 			
Other blockchain alliances	 Has alliances with major foundations and platforms such as Enterprise Ethereum Alliance, Hyperledger, R3, and Ripple BASE Alliance: Open industry-university collaborated research association in Japan International Association of Trusted Blockchain Applications (INATBA): Partnered with INATBA, a consortium backed by European commission, for blockchain development in Europe ALASTRIA: World's first national multi-sector network for accelerating the digital transformation of business sectors LACChain: An initiative to promote the use of Blockchain in Latin America and the Caribbean 			
Talent investments	 Design thinking-based discoveries: Runs a discovery program with different design thinking sessions for clients. These sessions begin with education and training to allow participants to become familiar with the context of Blockchain Education Program: The program aims at educating about blockchain and understanding its working through a hands-on trial Blockchain Discoveries: A discovery program with different design thinking sessions for clients to find opportunities Solution architecture team 			
Other investments	 Opened research, development, and innovation acceleration program in blockchain DSO fund Start-up investment: Partnered with Skuchain to build supply chain IoT platform 			



NTT DATA | Blockchain services (page 4 of 4)

Experience with blockchain platforms

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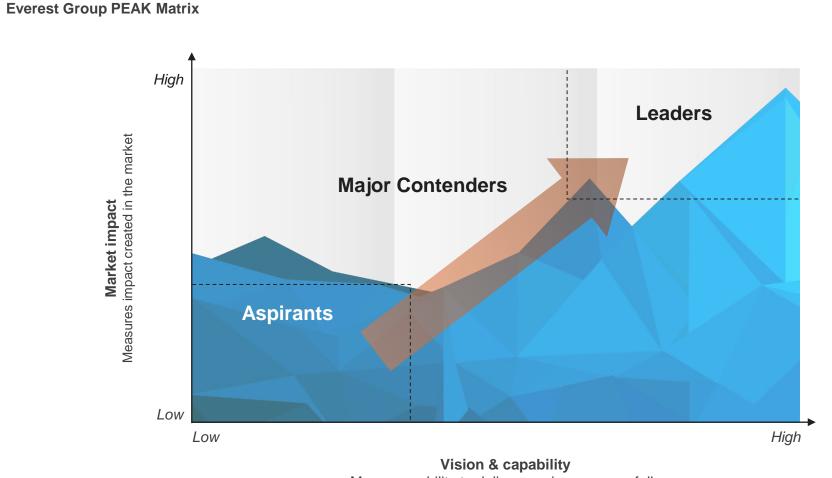
Number of client engagements (January 2018-June 2019): 🔲 (>30) 🔤 (16-30) 🔤 (6-15) 🔲 (1-5) 🔲 None				
Blockchain protocols	No. of client engagements	Leading business use cases		
Ethereum		Reinsurance services, digital identity, track and trace supplies, and health data storage & sharing		
Hyperledger Fabric		Trade platform, insurance process, and electronic monetary claim		
Quorum		Intercompany tokenized money		
R3 Corda		Reshape the Italian interbank reconciliation project		
Ripple		Payment and settlement of funds		
iQuattro		Supply chain management		
Bitcoin		Track & trace supplies and timestamping		
SAP Leonardo		Track & trace system using blockchain and IoT		
Original Blockchain Engine		Local currency		
Hyperledger Sawtooth		N/A		
Hyperledger Quilt		N/A		
MultiChain		N/A		
Bigchain DB		N/A		
Factom		N/A		
Hyperledger Besu		N/A		



Appendix



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



Measures ability to deliver services successfully



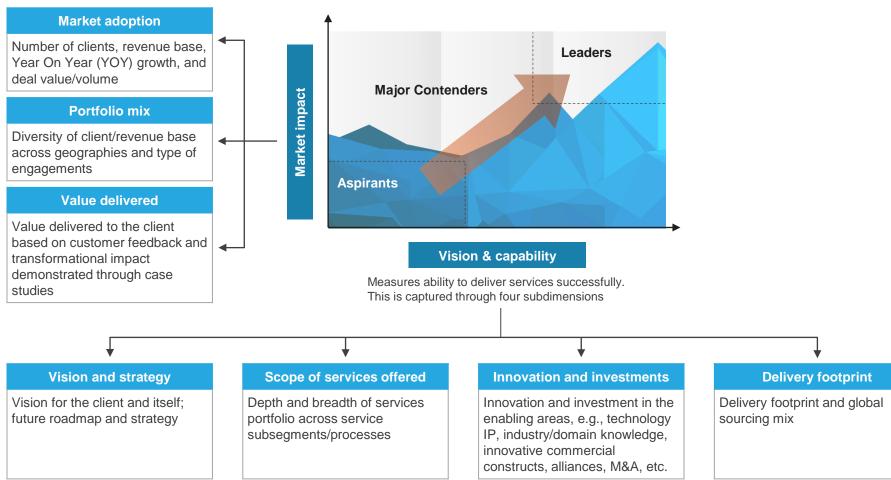
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Services PEAK Matrix[™] evaluation dimensions

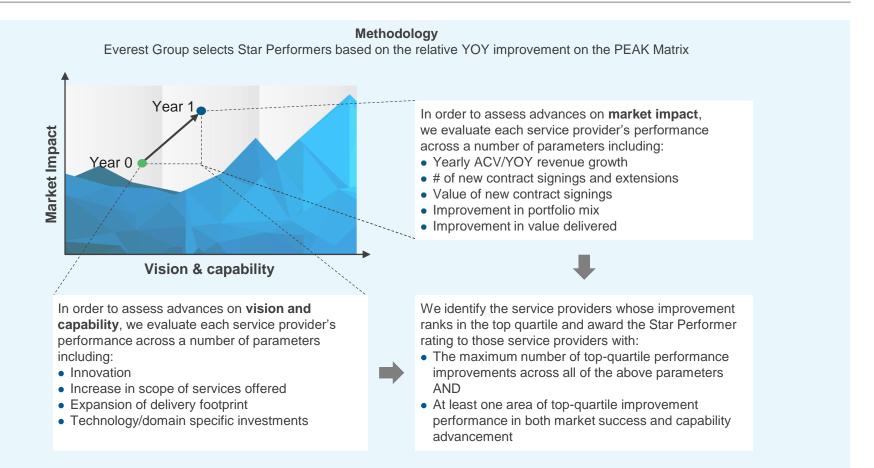


Measures impact created in the market – captured through three subdimensions





Everest Group confers the Star Performers title on providers that demonstrate the most improvement over time on the PEAK Matrix[™]



The Star Performers title relates to YOY performance for a given vendor and does not reflect the overall market leadership position, which is identified as Leader, Major Contender, or Aspirant.



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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







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 wellinformed 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.

Dallas (Headquarters) info@everestgrp.com +1-214-451-3000

Bangalore india@everestgrp.com +91-80-61463500

Delhi india@everestgrp.com +91-124-496-1000

London unitedkingdom@everestgrp.com +44-207-129-1318

New York info@everestgrp.com +1-646-805-4000

Toronto canada@everestgrp.com +1-416-388-6765

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