

NEAT EVALUATION FOR NTT DATA:

Blockchain in Business Process Transformation

Market Segment: Overall

Introduction

This is a custom report for NTT DATA presenting the findings of the NelsonHall NEAT vendor evaluation for *Blockchain in Business Process Transformation* in the *Overall* market segment. It contains the NEAT graph of vendor performance, a summary vendor analysis of NTT DATA in blockchain services, and the latest market analysis summary.

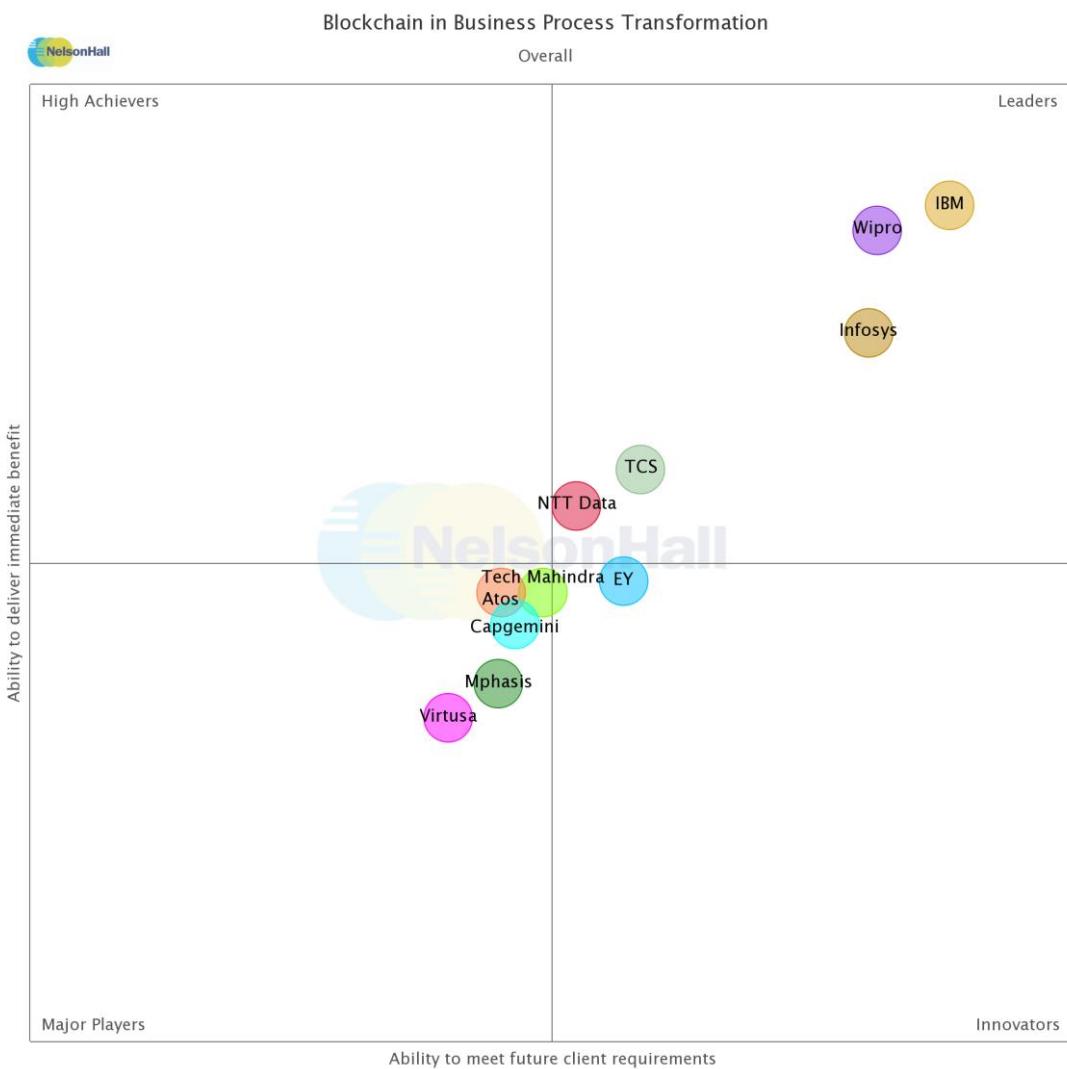
This NelsonHall Vendor Evaluation & Assessment Tool (NEAT) analyzes the performance of vendors offering blockchain services. The NEAT tool allows strategic sourcing managers to assess the capability of vendors across a range of criteria and business situations and identify the best performing vendors overall, and with specific capability in the banking, government, and telecoms & media sectors.

Evaluating vendors on both their ‘ability to deliver immediate benefit’ and their ‘ability to meet future client requirements’, vendors are identified in one of four categories: Leaders, High Achievers, Innovators, and Major Players.

Vendors evaluated for this NEAT are: Atos, Capgemini, EY, IBM, Infosys, Mphasis, NTT Data, TCS, Tech Mahindra, Virtusa, and Wipro.

Further explanation of the NEAT methodology is included at the end of the report.

NEAT Evaluation: Blockchain in Business Process Transformation (Overall)



NelsonHall has identified NTT DATA as a Leader in the *Overall* market segment, as shown in the NEAT graph. This market segment reflects NTT DATA's overall ability to meet future client requirements as well as delivering immediate benefits to blockchain services clients.

Leaders are vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements.

Buy-side organizations can access the Blockchain in Business Process Transformation NEAT tool (Overall) [here](#).

Vendor Analysis Summary for NTT DATA

Overview

NTT DATA is a part of the NTT Group, and is a \$19B organization on its own with 118,000 total employees focused on systems integration and IT services. The unit expanded considerably with the acquisition of Dell Services in 2016.

NTT DATA formed its blockchain center of excellence in 2015 and commenced commercial operations in designing and deploying blockchain proofs of concept the year following. By the end of 2017, the CoE and business unit staffing level had reached 200, with blockchain personnel in 17 countries, and four separate innovation labs devoted to blockchain technology evaluation.

NTT DATA was a founding member of the Hyperledger Project, and was an early contributor to the Hyperledger Iroha framework.

Financials

NTT DATA does not disclose its blockchain-specific revenues, but NelsonHall estimates its revenue from blockchain projects at \$10m.

Strengths

- Balanced global mix of blockchain work to date
- SKUCHain partnership enables NTT DATA blockchain solutions to reach the edge on IoT
- Experience in building on multiple platforms to date - Ethereum, HyperLedger, Corda
- QuickPOC toolset allows NTT DATA to migrate clients quickly from design to PoC
- Early to identify utility value of blockchain app marketplace and has moved to implement
- Integrated vision of AI, IoT, and blockchain as transformation agents provides clients a compelling roadmap
- Focus on reusability of developed blockchain solution code and processes lowers overall cost to clients
- Sponsorship of Iroha has the potential to provide NTT DATA with an advantage in mobile blockchain applications.

Challenges

- Has not yet standardized on a core group of delivery architectures; still evaluating many
- Overall traction in life sciences blockchain segment lags the company's other successes.

Strategic Direction

Going forward, NTT DATA will enhance its:

- POC development process. NTT DATA has a near-term focus on continuing to speed up the blockchain proof of concept development cycle, including broadening its development toolset in QuickPOC, hiring more blockchain developers, and bringing its development cloud environment to the BCOSE unit. Overall, the goal of these activities is to enable NTT DATA to move interested clients much faster from initial contact to proof of concept and on to commercial scaling and deployment.
- Blockchain-as-a-Service capabilities. NTT DATA is also active in building out its BaaS capability set, with the intention of increasing 'stickiness' with existing clients and new logos by smoothing the path from PoC to commercial deployment. This includes docking its blockchain development cloud with NTT DATA's broader cloud computing offerings, building out interoperability capabilities that enable client solutions to communicate with other blockchain platforms, and filling out its global professional services reach with more blockchain-skilled consulting and development staff.
- Return from the SKUCHain investment. NTT DATA's initial investment in, and partnership with, SKUCHain had the relatively straightforward goal of combining SKUCHain's EC3 platform with NTT DATA's iQuattro SCM solution. Going forward, NTT DATA has a broader vision in mind: utilizing the combined EC3/iQuattro platform in conjunction with 4Trace as an ERP 'platform in common' among multiple participants in a supply chain. NTT DATA believes that a blockchain solution with proprietary resource planning software can function less expensively as an ERP solution than provisioning a traditional ERP platform in multiple companies, and fully intends to promote its SKUCHain solution as such.

Outlook

NTT DATA has adopted a measured approach to blockchain capability development, keeping its platform options open while building a strong global solution design presence and balancing its pursuits across multiple geographies. This is in line with NTT DATA's overall strategic thrust of becoming a trusted global innovator. Thus far, that approach has positioned NTT DATA well for the next phase of competition in the distributed ledger technology market, which we expect to reward organizations that built capability to match market demand before promoting offerings aggressively.

In particular, NTT DATA's vision of blockchain as an ERP platform in common across multiple partnered companies should provide the firm with a sustainable source of differentiation, provided the SKUCHain technology roadmap remains up to the challenge on a scale basis. Combined with NTT DATA's strategic direction of providing blockchain as a service, a compelling picture emerges of an organization ready to serve multiparty cloud ERP on blockchain. Given NTT DATA's expansion of its U.S. reach through its acquisition of Dell Services in 2016, we expect NTT DATA to be a net share taker through 2023 in blockchain service revenue.

Blockchain in Business Process Transformation

Market Summary

Buy-Side Dynamics

Three primary factors dominate client demand for blockchain solutions: security of information, transparency of transaction data, and speed of settlement.

While the cryptographic aspects of blockchain provide clients with traditional IT security, the real appeal of blockchain implementations for many clients is the historical security of their information due to the immutability of blockchain records

Transparency and trust are often mentioned in the same sentence by vendors in NelsonHall's coverage universe, and with good cause: the ability to monitor the movement of goods and payments through a blockchain application provides all parties involved with assurance of shipment and payment performance

Whether the application is mobile roaming contracts in telecoms or royalty payments for video games, blockchain provides a means for immediate settlement of invoices and payments, accelerating the process of returning working capital to sellers.

Market Size & Growth

The global blockchain market is worth \$610m (estimated in 2018), with average CAGR of 94% through 2022.

The United States, UK and Continental Europe, Japan, and South Korea are the largest and fastest-growing geos. Vendors are focused on the high-growth geographies for their expansion and brand development efforts.

Enterprise-scale organizations of \$1bn in revenue and above will continue to be the primary demand-side force in blockchain.

BFSI, manufacturing, and healthcare are the strongest demand sectors, with telecom, logistics, and energy growing swiftly.

Challenges & Success Factors

Vendor selection is strongly influenced by similarity of proven commercial deployments to new engagements and the provider's vision for blockchain within digital transformation.

Principal challenges for vendors today are breadth and depth of solution experience by vertical market, horizontal process, and blockchain platform. Blockchain services providers are contending with the challenge of demonstrating proven capability and experience in a young and platform-fragmented segment.

Many have opted for one of the following capability build strategies: depth in key vertical markets, depth in common horizontal processes, or depth in platform.

Through 2022, downstream vendor success factors will include correctness of marketplace vision, speed to market share, breadth of capability, and ecosystem reach.

Outlook

Over the next few years:

- Primary drivers for blockchain will remain operational transparency, acceleration of business cycle times, and information security
- However, drivers for blockchain deployment will have transitioned away from intra-organizational or vertical applications within the supply chain toward engaging with 'networks of networks'
- Deployments by industry will broaden to include more significant presence in energy, telecom, logistics, and public sector, although BFSI will continue to dominate the landscape
- The United States, EU and Asia/Pacific will continue to be the principal demand geographies for blockchain solutions.
- Platform selection ambiguity in the architecture process will give way to 'the right platform for the job' as the platform picture clarifies through competitive attrition and corporate development activity
- Interconnection will become the priority as more organizations mature in their ability to present a unified, digital presence to supply chain participants, business partners, and customers. The focus is on ensuring that different blockchain platform architectures can interchange data seamlessly.
- Acquisition activity will accelerate, with acquiring firms prioritizing throughput acceleration, quantum computing-proofing, and AI capabilities in target organizations.

NEAT Methodology for Blockchain in Business Process Transformation

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet client future requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet client future requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- **Leaders:** vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements
- **High Achievers:** vendors that exhibit a high ability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet client future requirements
- **Innovators:** vendors that exhibit a high capability relative to their peers to meet client future requirements but have scope to enhance their ability to deliver immediate benefit
- **Major Players:** other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Exhibit 1**'Ability to deliver immediate benefit': Assessment criteria**

Assessment Category	Assessment Criteria
	Breadth of application of blockchain
	Breadth of blockchain platforms
	Maturity of capability - Hyperledger
	Maturity of capability - Ethereum
	Maturity of capability - Quorum
	Maturity of capability - R3 Corda
	Maturity of capability - specialized platforms
	Application of blockchain to supply chain processes
	Application of blockchain to retail banking processes
	Application of blockchain to capital markets processes
Offerings	Application of blockchain to health insurance processes
	Application of blockchain to healthcare and life sciences processes
	Application of blockchain to telecoms processes
	Application of blockchain to government processes
	Application of blockchain to manufacturing processes
	Application of blockchain to retail processes
	Application of blockchain to travel, transportation & logistics
	Application of blockchain to energy & utility processes
	Application of blockchain to drive new digital process models
	Blockchain consulting capability
	Ability to combine blockchain with BPS services
	Scale of blockchain delivery capability
	Maturity of IP overall
	Maturity of delivery framework overall
	Maturity of accelerators overall
	Maturity of accelerators - supply chain
Delivery	Maturity of accelerators - retail banking
	Maturity of accelerators - capital markets
	Maturity of accelerators - health insurance
	Maturity of accelerators - healthcare and life sciences
	Maturity of accelerators - telecoms
	Maturity of accelerators - government
	Maturity of accelerators - manufacturing
	Maturity of accelerators - retail
	Maturity of accelerators - travel, transportation & logistics
	Maturity of accelerators - energy & utilities
	Extent of major blockchain partnerships
	Extent of blockchain technology partnerships
	Overall blockchain presence
Presence	Overall blockchain presence

Exhibit 2**'Ability to meet client future requirements': Assessment criteria**

Assessment Category	Assessment Criteria
Level of Investment	Level of investment in proprietary blockchain tools Ability to introduce new digital business models
Sector Emphasis	Supply chain process emphasis Retail banking process emphasis Capital markets process emphasis Health insurance process emphasis Healthcare and life sciences process emphasis Telecoms process emphasis Government process emphasis Manufacturing process emphasis Retail process emphasis Travel, transportation & logistics process emphasis Energy & utilities process emphasis

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.

Sales Enquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:

Guy Saunders at guy.saunders@nelson-hall.com

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